



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY
Know the Earth... Show the Way... Understand the World

Me on the Map





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NGA in St. Louis





Fun Fact !

Where does the world's largest collection of maps reside?



The Library of Congress in Washington, D.C.

5.4 Million!



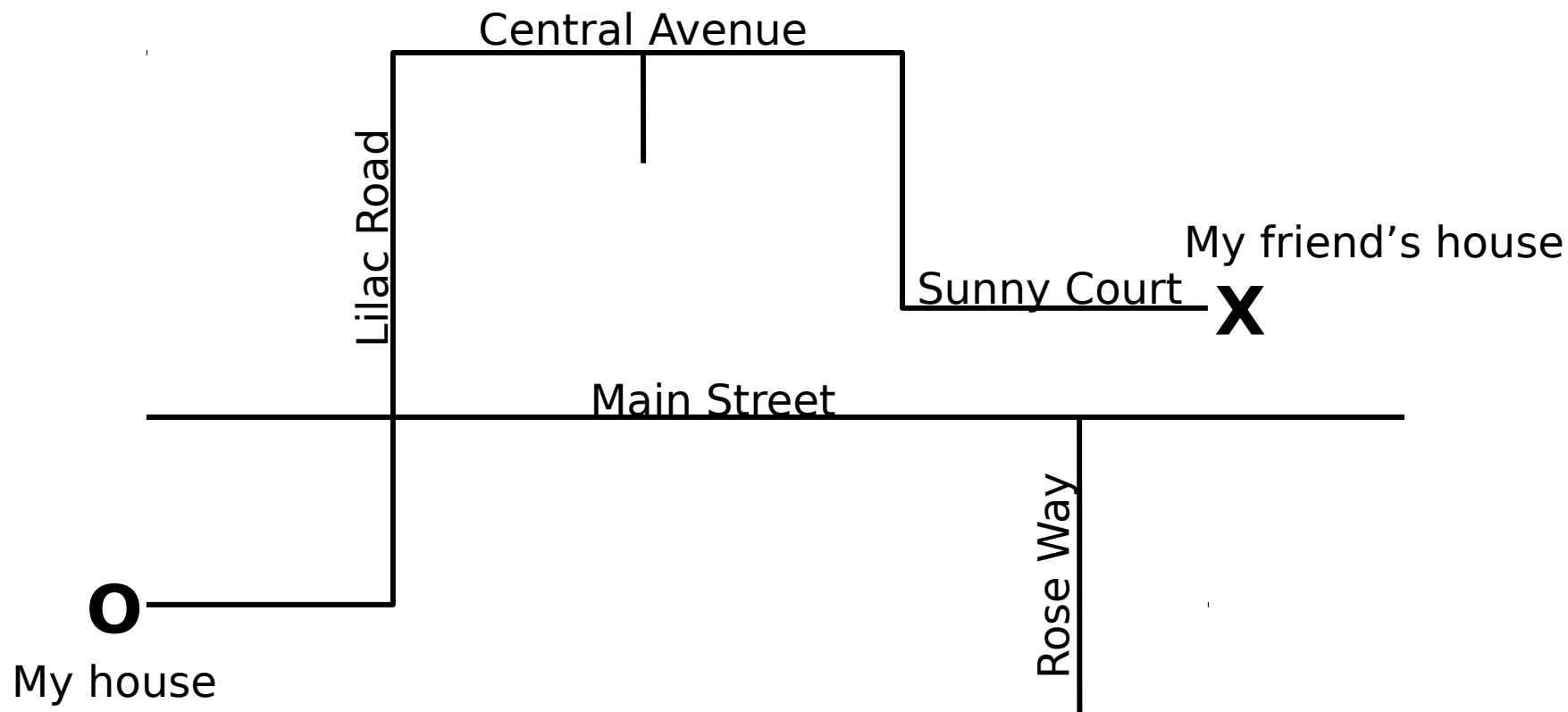
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Have you ever drawn a map?



A simple line map



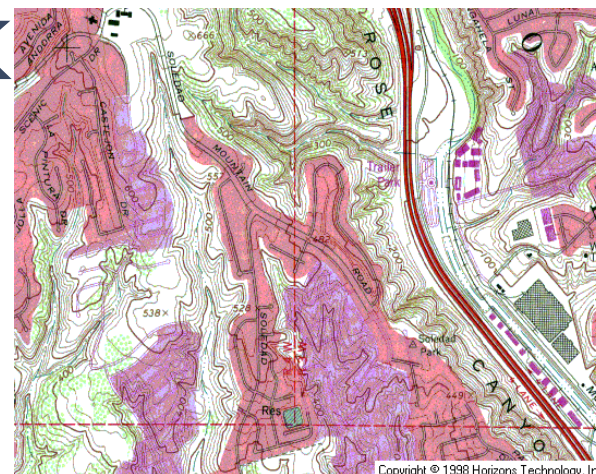


Some types of maps NGA make

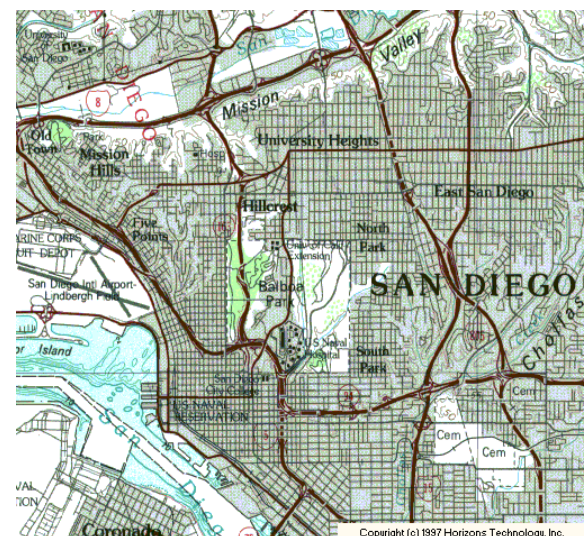
Shaded relief



Topographic



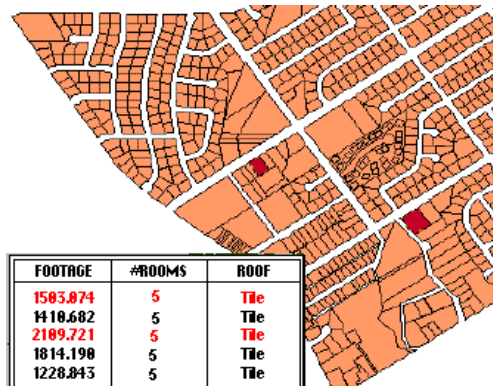
City map



World map

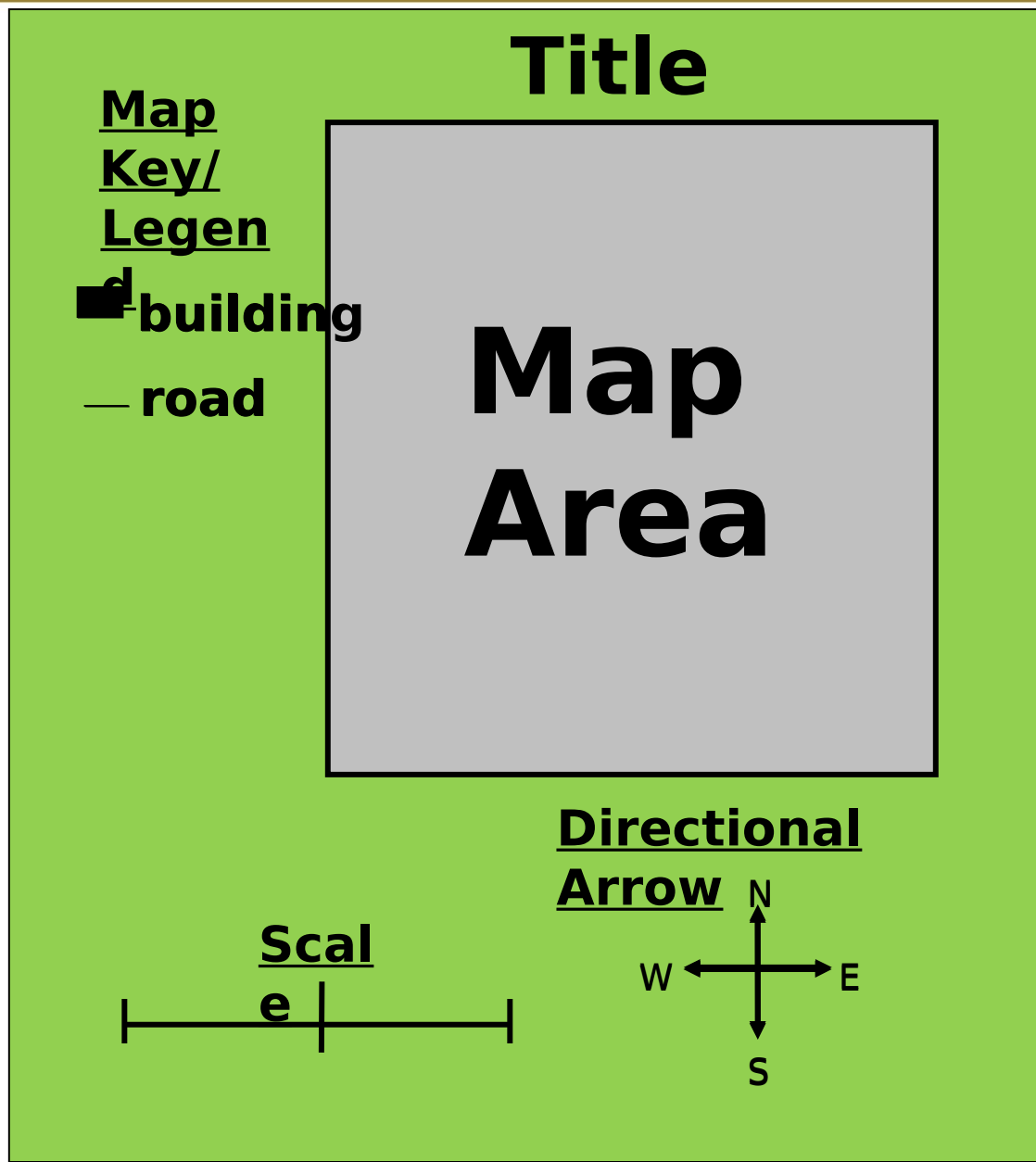


City streets





Parts of a Map



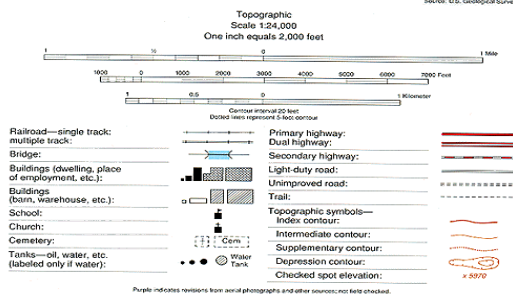
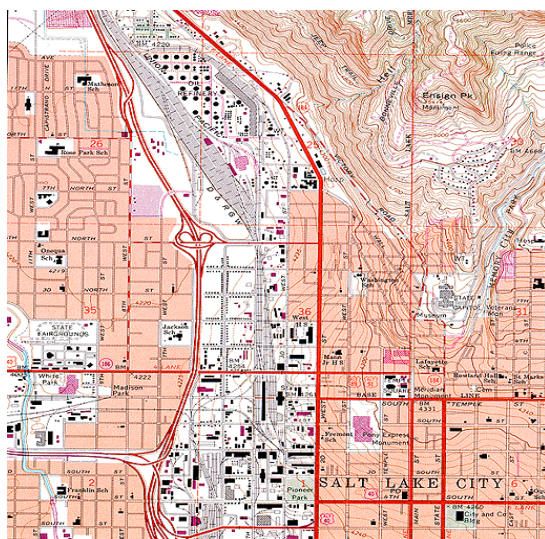


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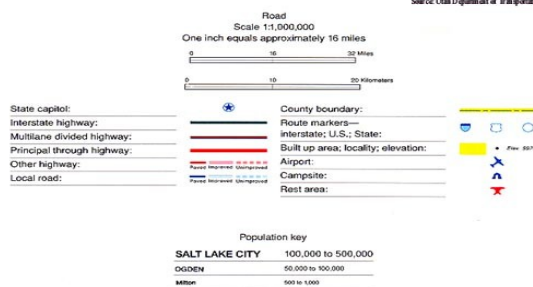
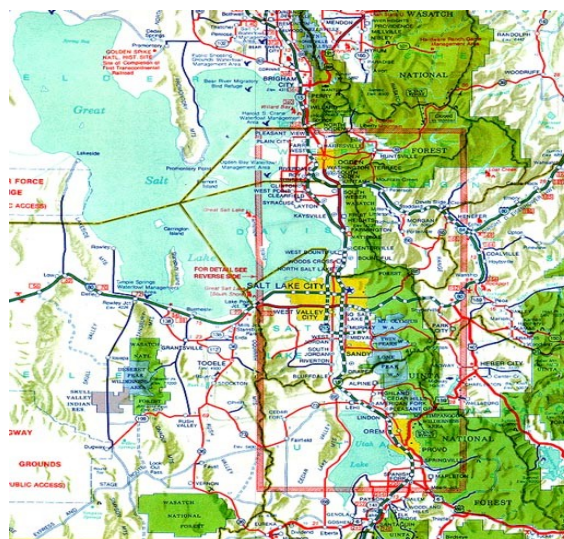
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Map Symbols

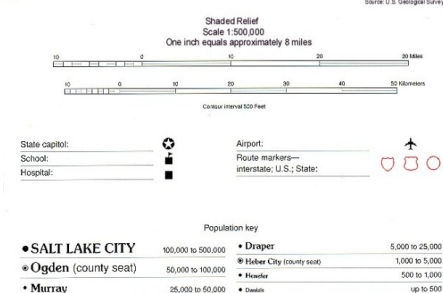
Topographic Map



Road Map



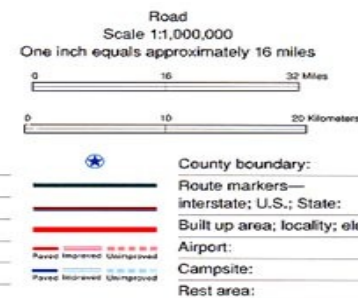
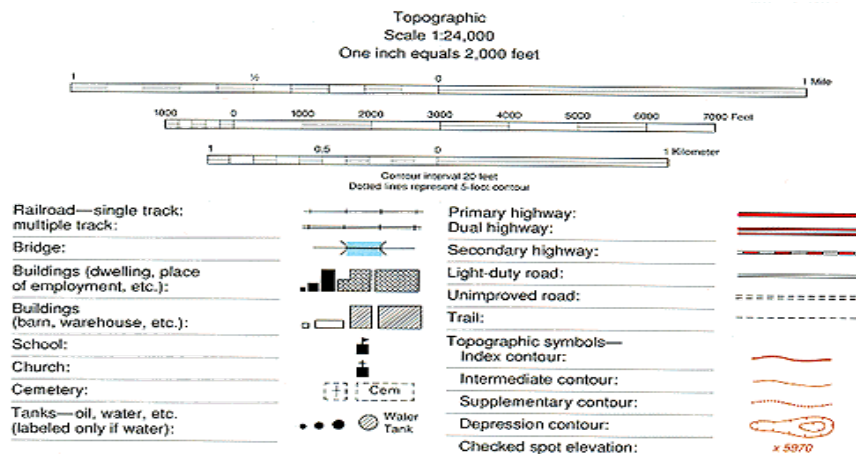
Shaded Relief Map





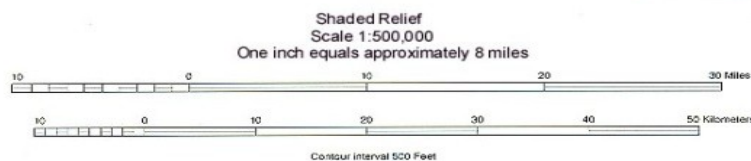
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Population key

SALT LAKE CITY	100,000 to 500,000
OGDEN	50,000 to 100,000
MILTON	500 to 1,000



State capitol:		Airport:	
School:		Route markers—	
Hospital:		interstate; U.S.; State:	

Population key

• SALT LAKE CITY	100,000 to 500,000	• Draper	5,000 to 25,000
• Ogden (county seat)	50,000 to 100,000	• Heber City (county seat)	1,000 to 5,000
• Murray	25,000 to 50,000	• Hendrix	500 to 1,000
		• Danville	up to 500



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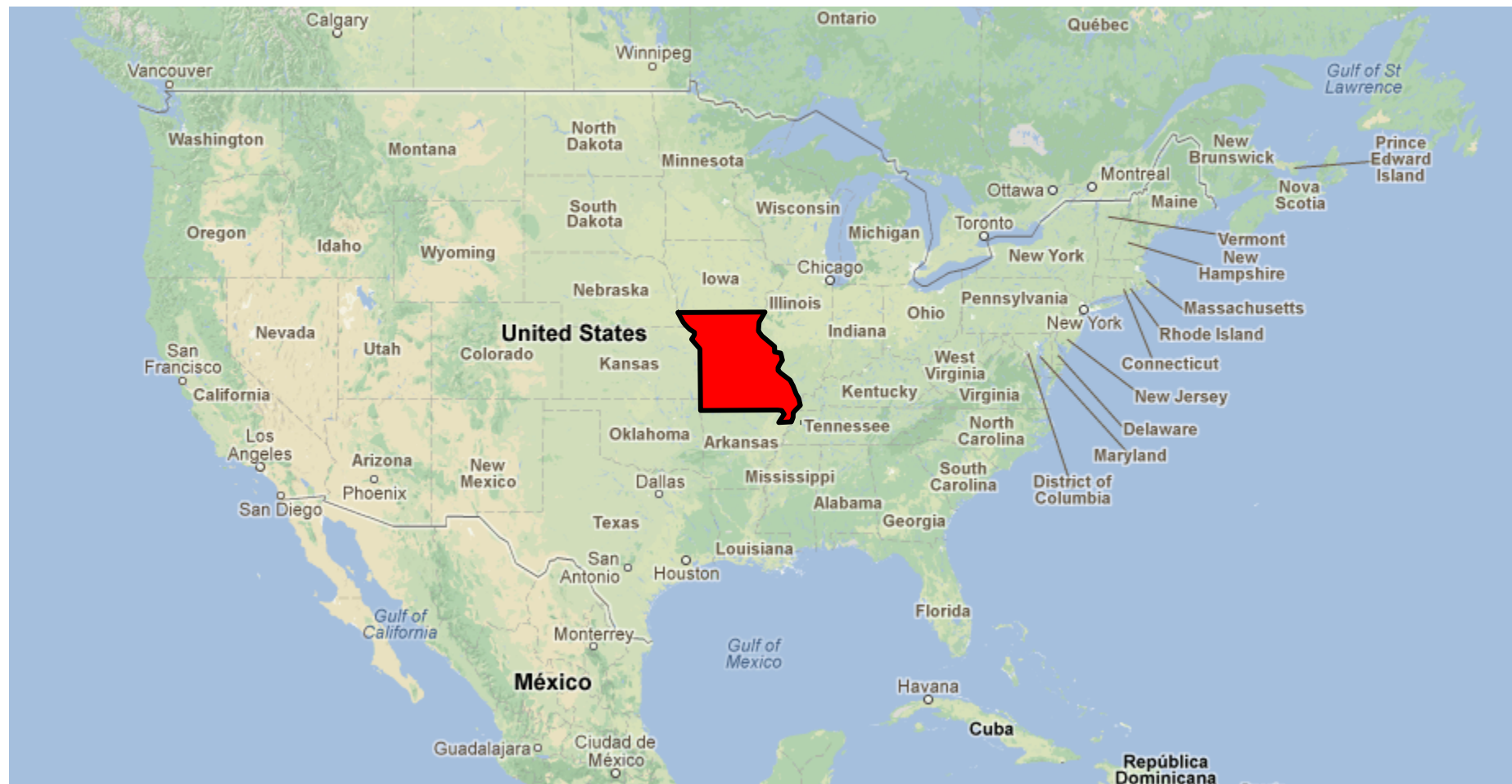
**Let's
talk
about
scale!**





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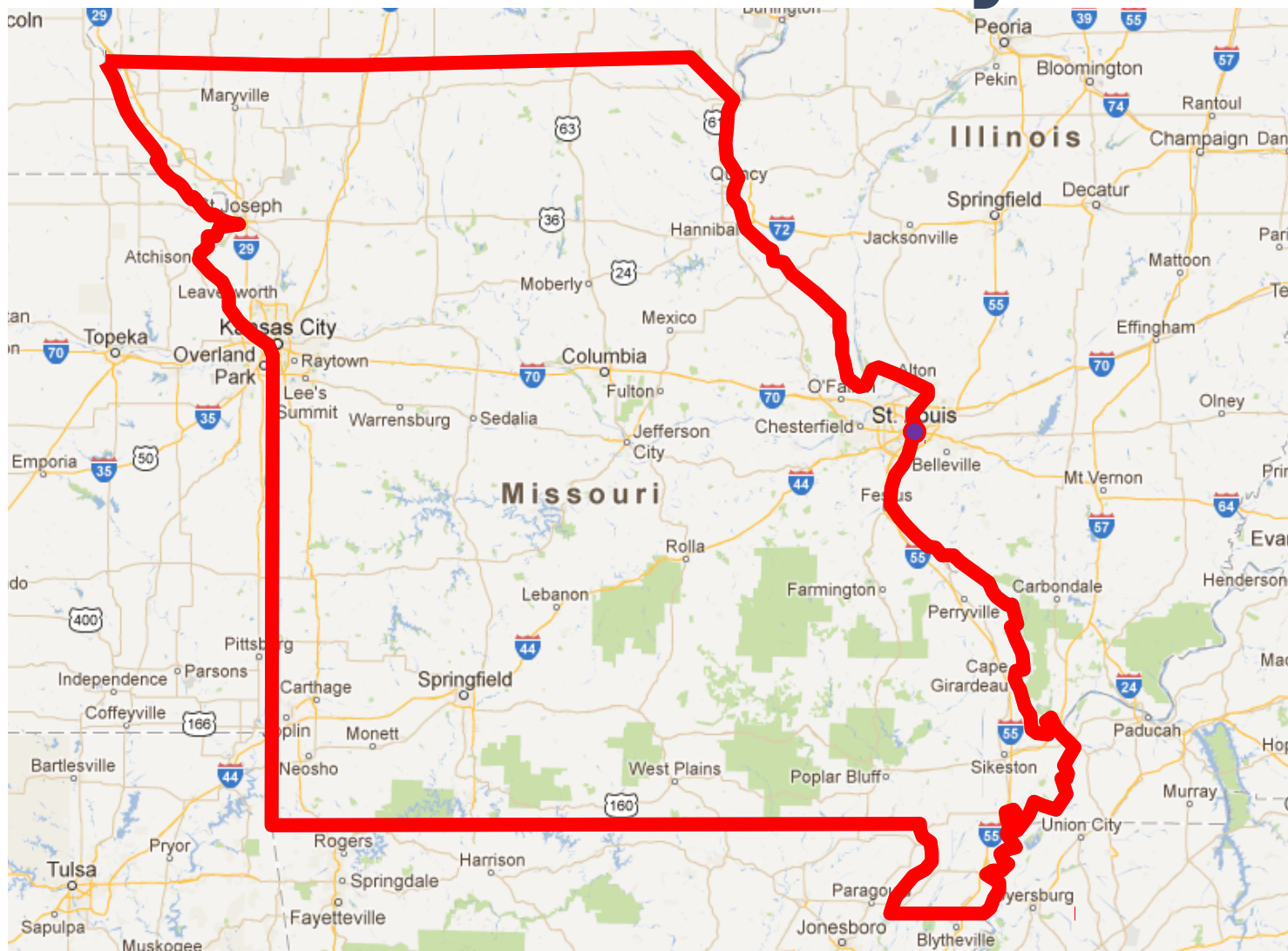
United States of America





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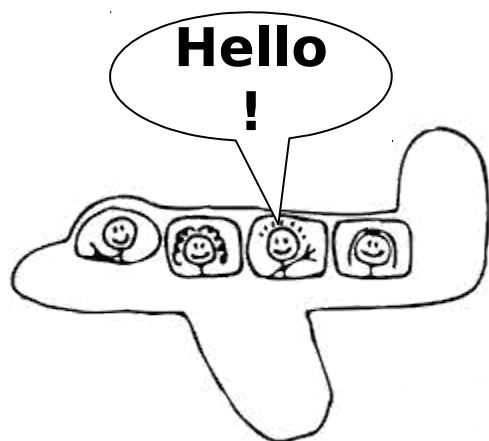
State and City

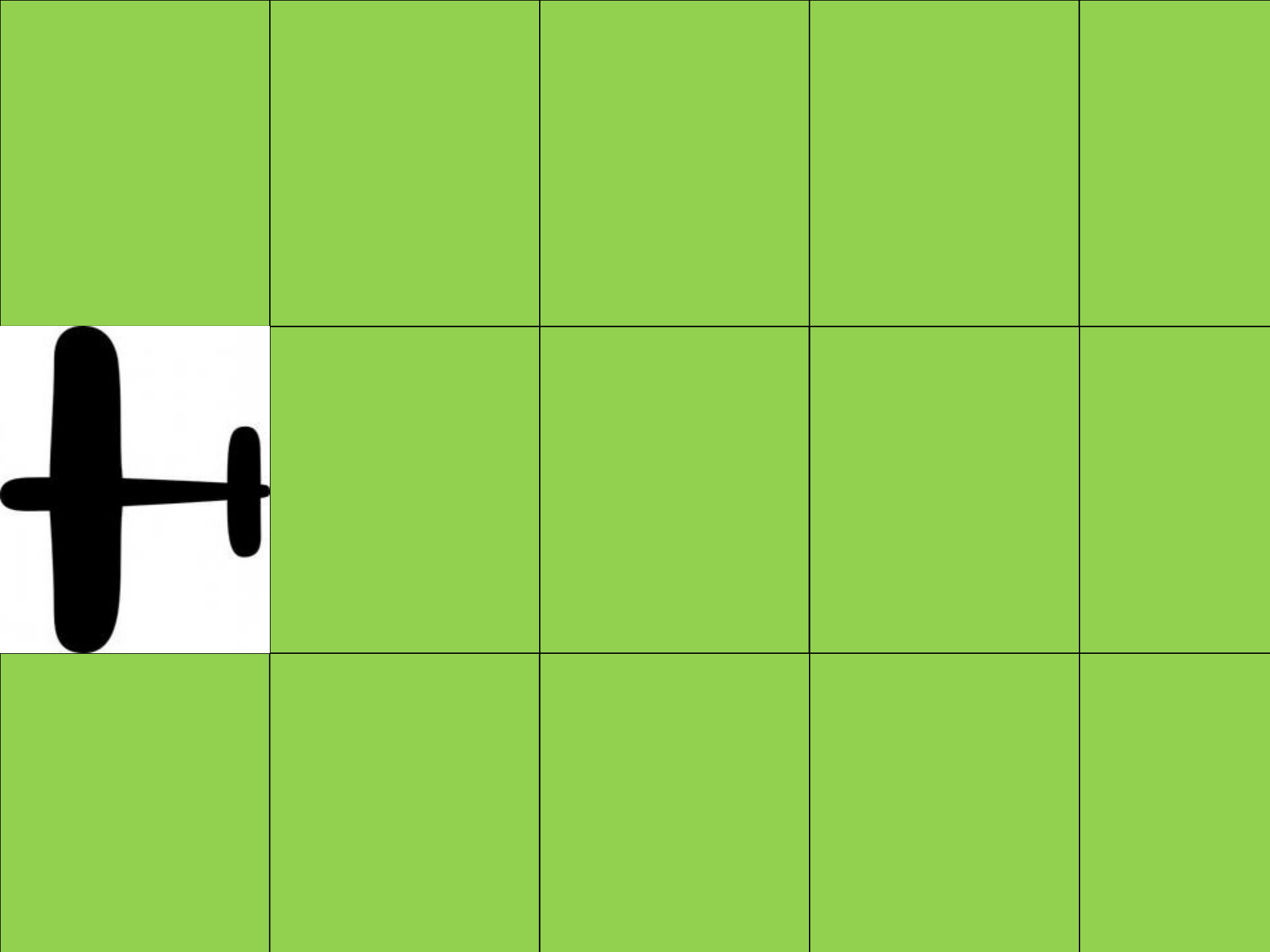




How Maps Are Made

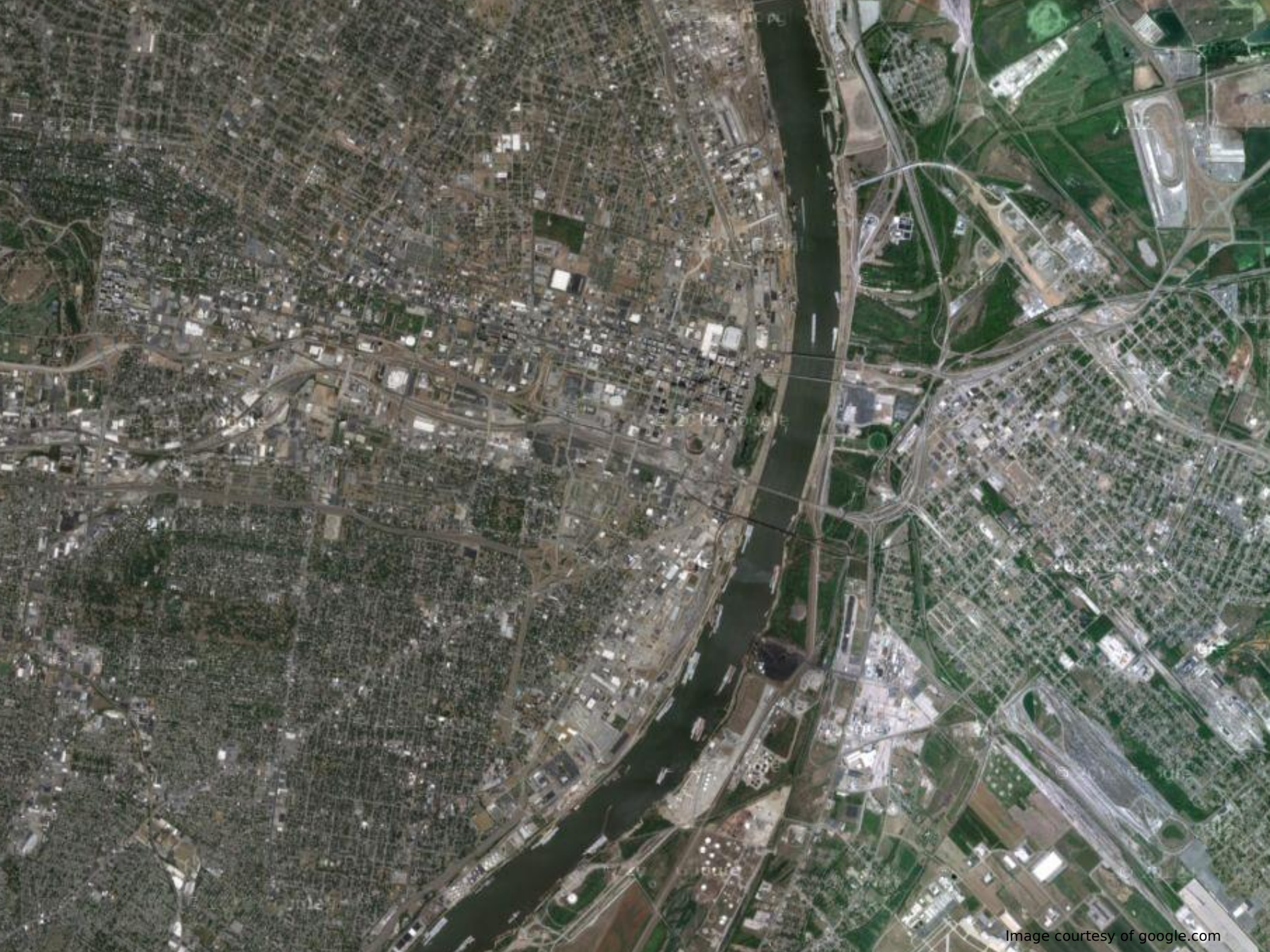
Photography from
planes or satellite

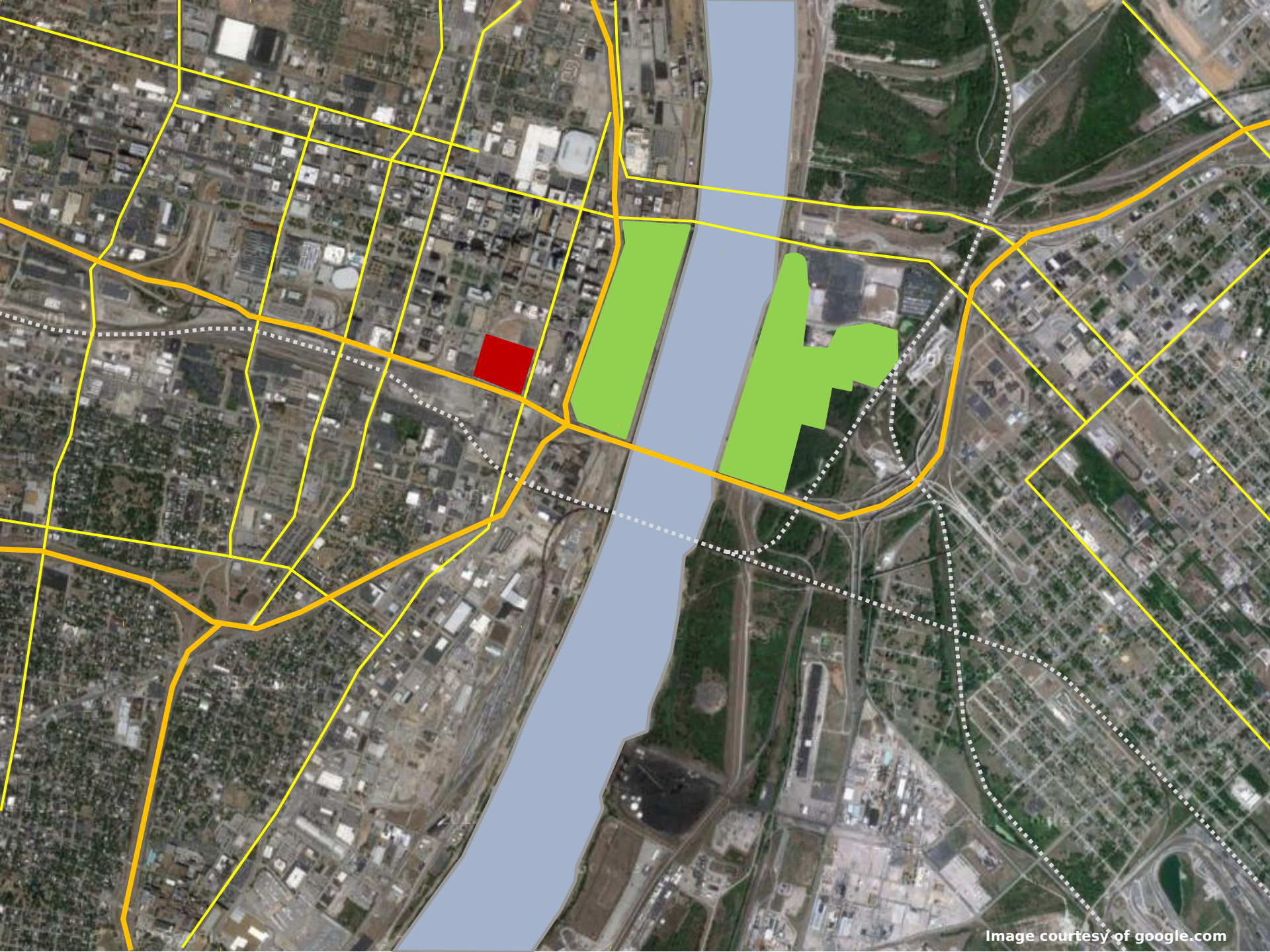


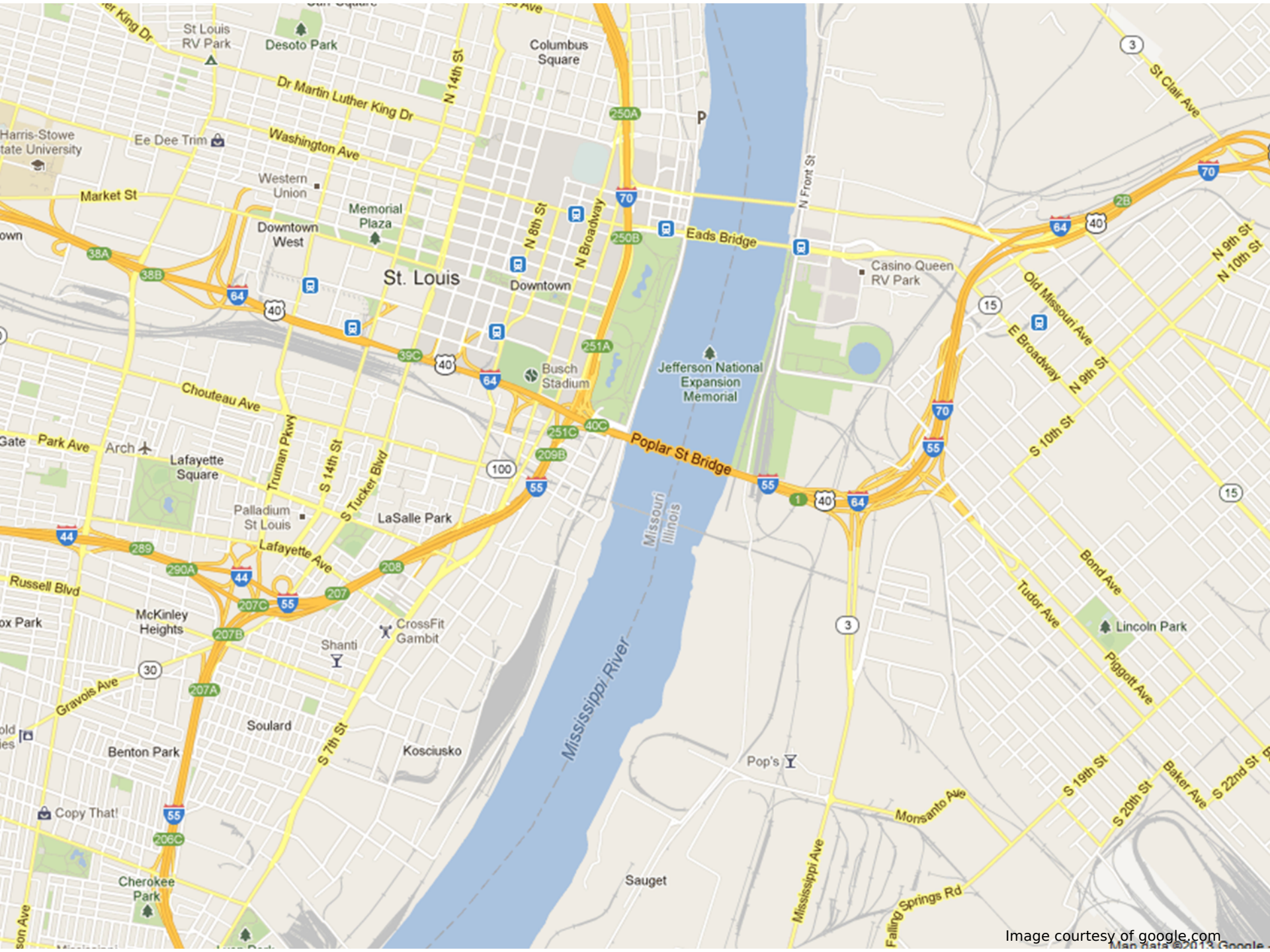








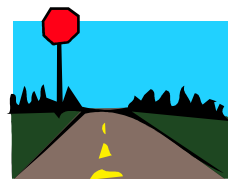






GIS Data Layers

Examples of
layers: 1 - roads



layer 2 - rivers, lakes, oceans



layer 3 - buildings



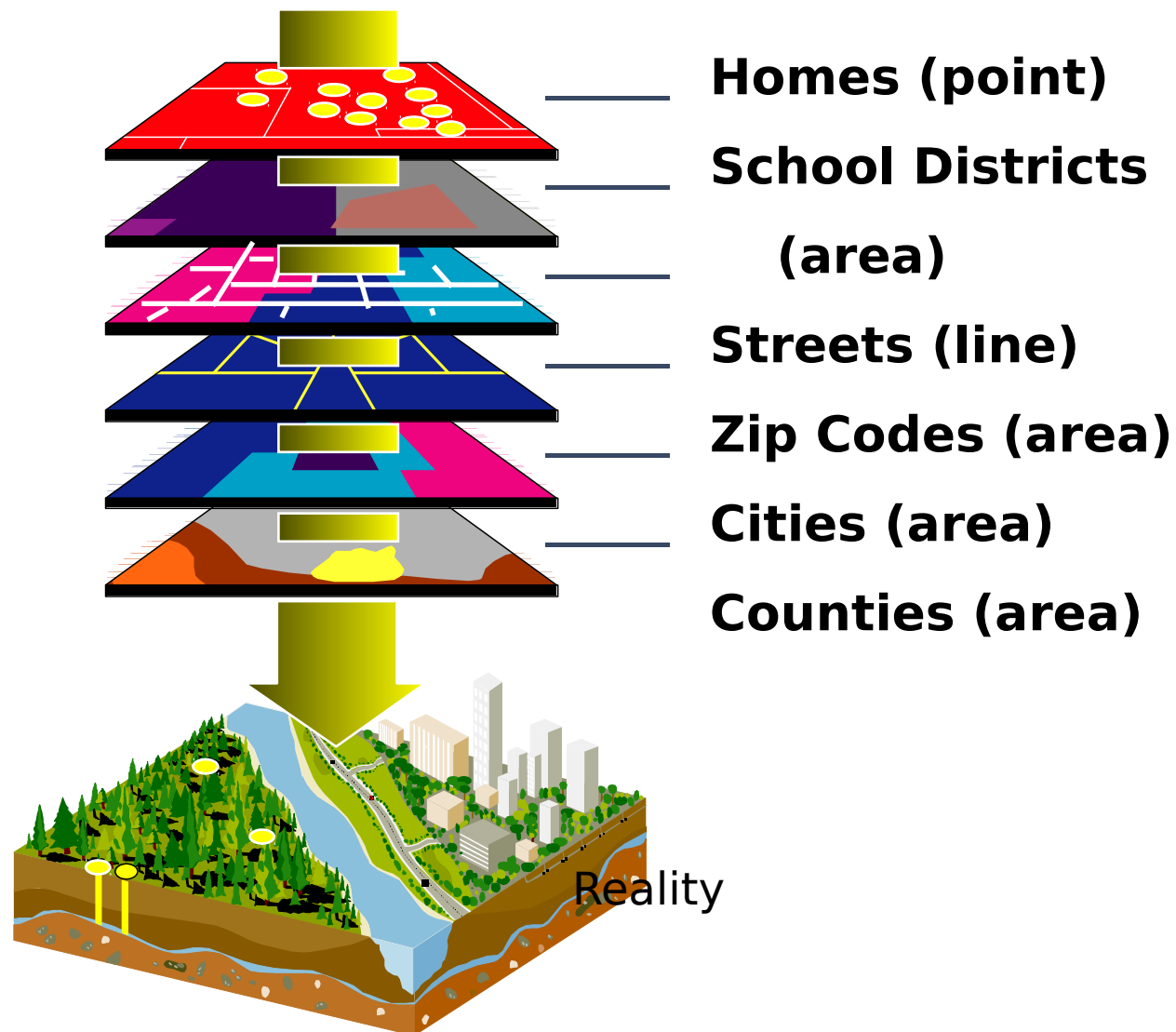
layer 4 - cities, towns





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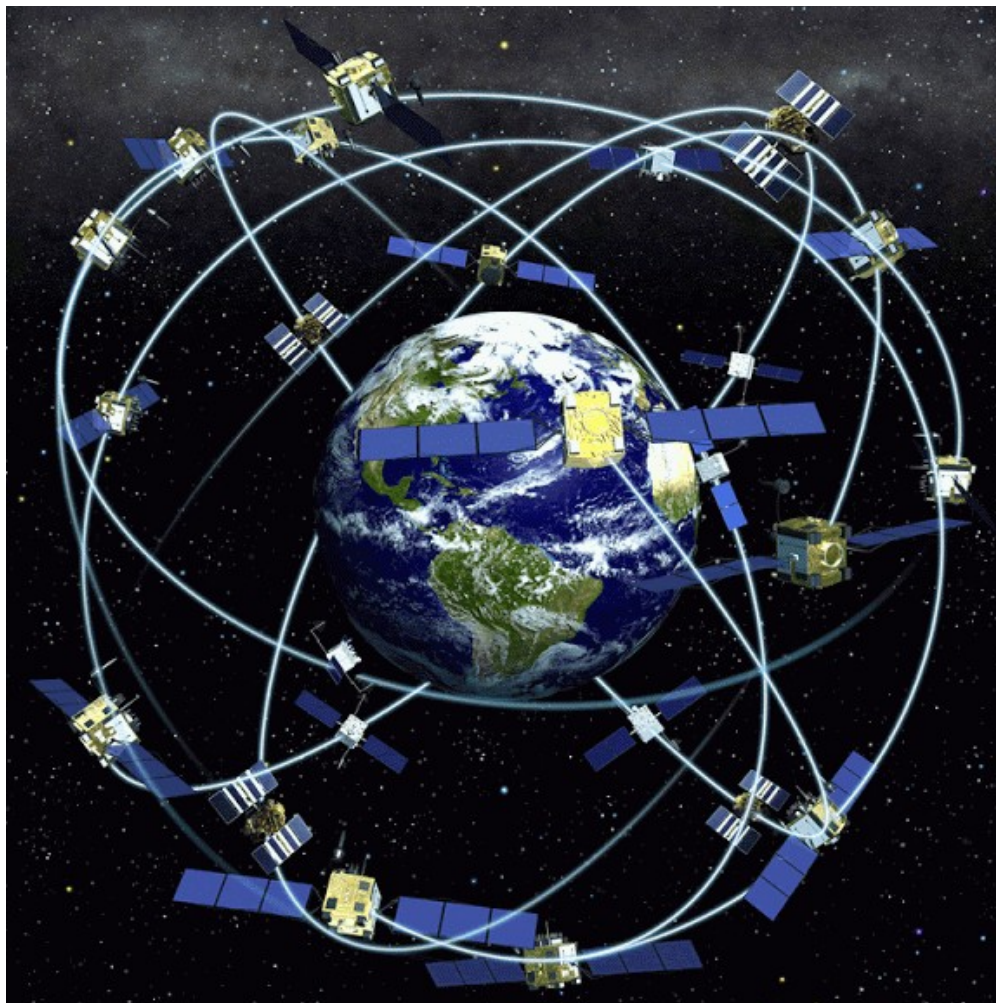
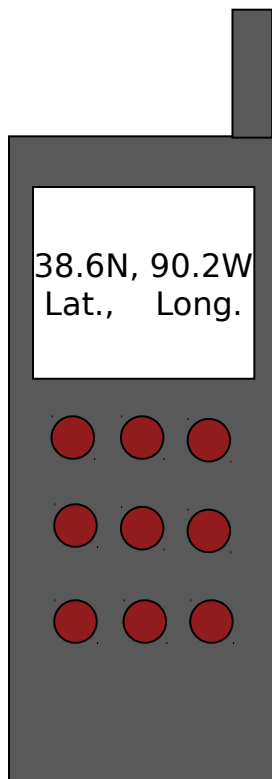
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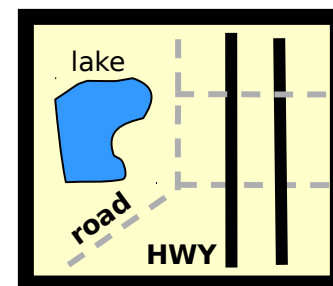
**Surveyors on
the ground
use special
instruments**



Handheld GPS



Car -Truck - Boat GPS



GPS Constellation



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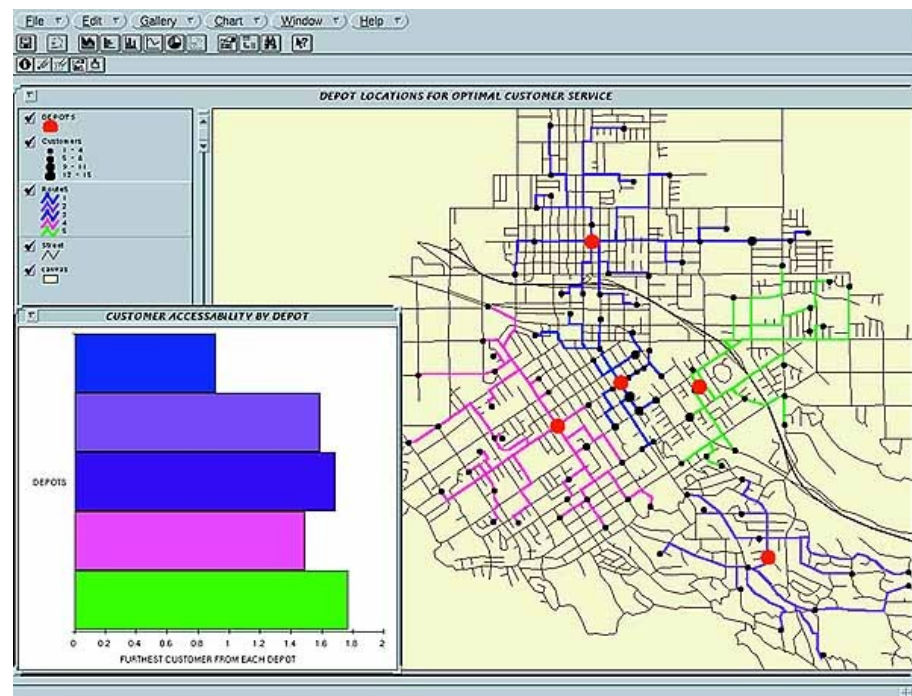


Can you guess who uses maps?





City maps of your neighborhood are used to help plan school bus routes

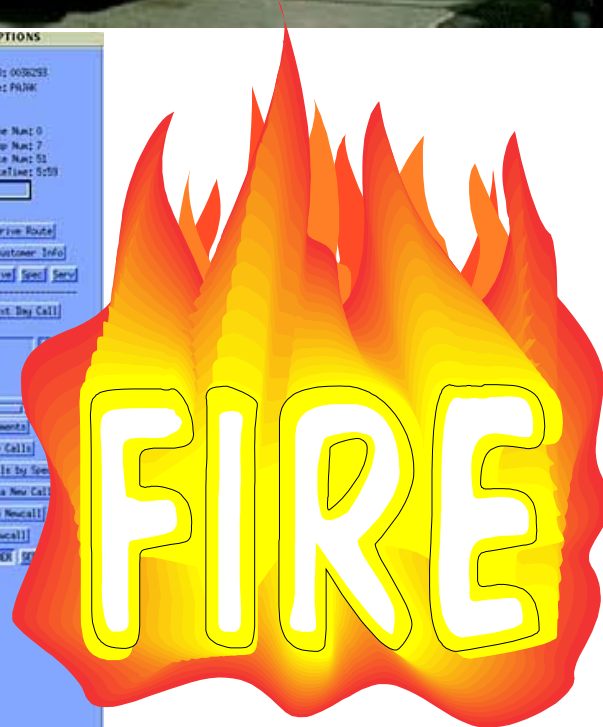
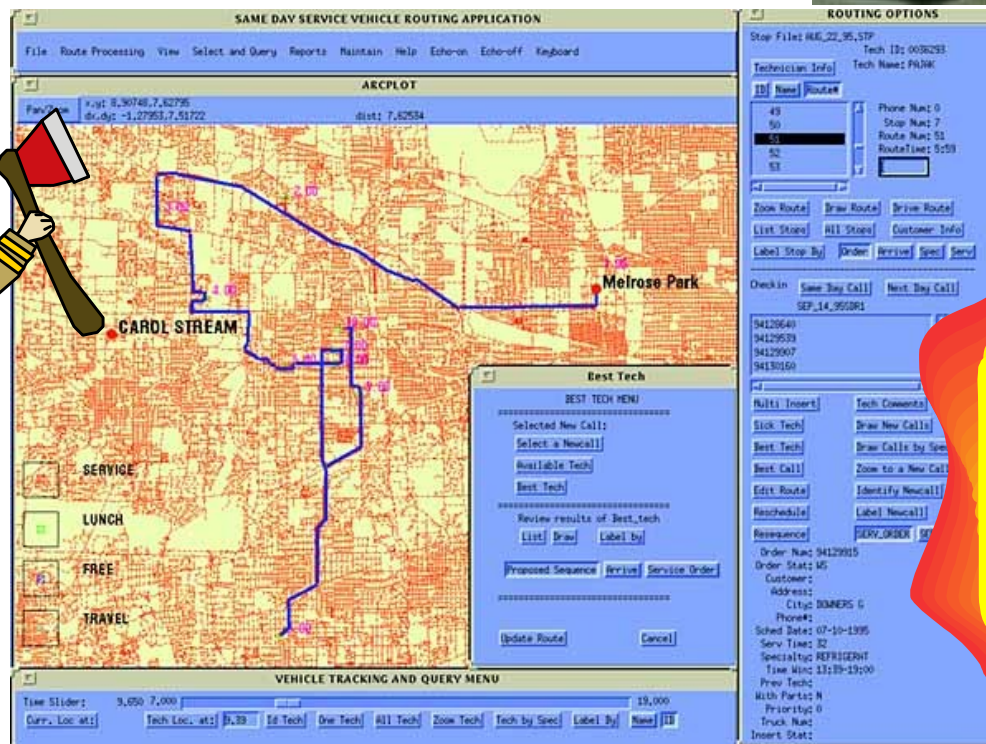




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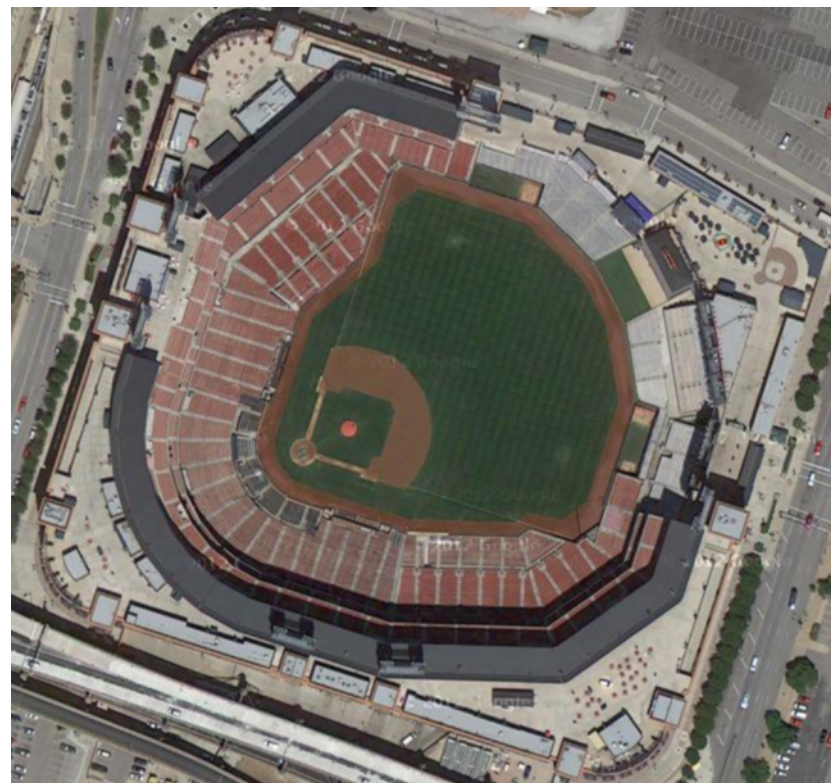
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City maps are used by firemen to get to the fire as fast as they can





Maps are used to locate a place to build a new baseball stadium



Busch Stadium in St.
Louis



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Let's Try Drawing A Map



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Let's Draw:

A Map of My Street

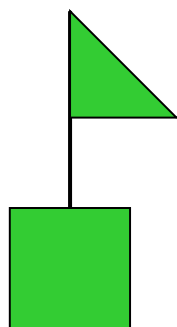




Let's Draw:

A Map of My Street

(Some legend symbols to use)



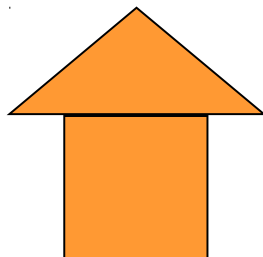
School



Building



Road



House



Hospital



Railroad Track







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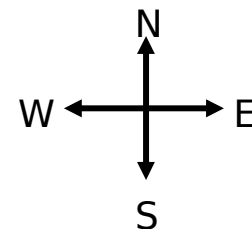
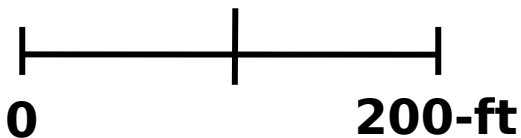
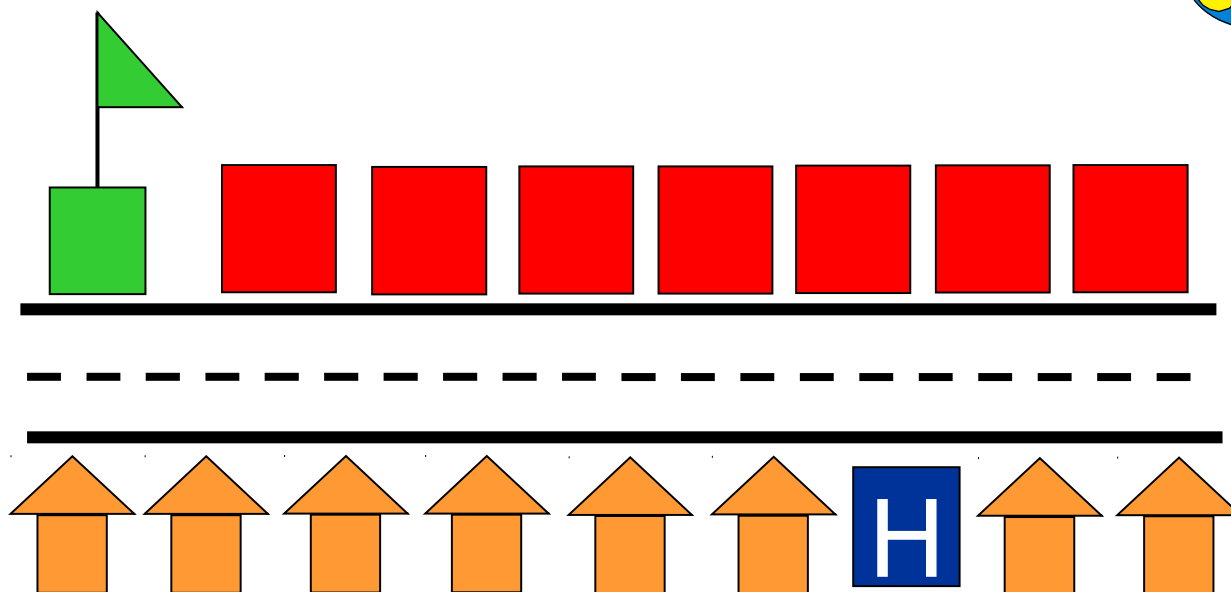
Let's Draw:

A Map of My Street



Legend

-  School
-  House
-  Hospital
-  Building





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Let's see some 3-D Imagery

What's an Anaglyph?

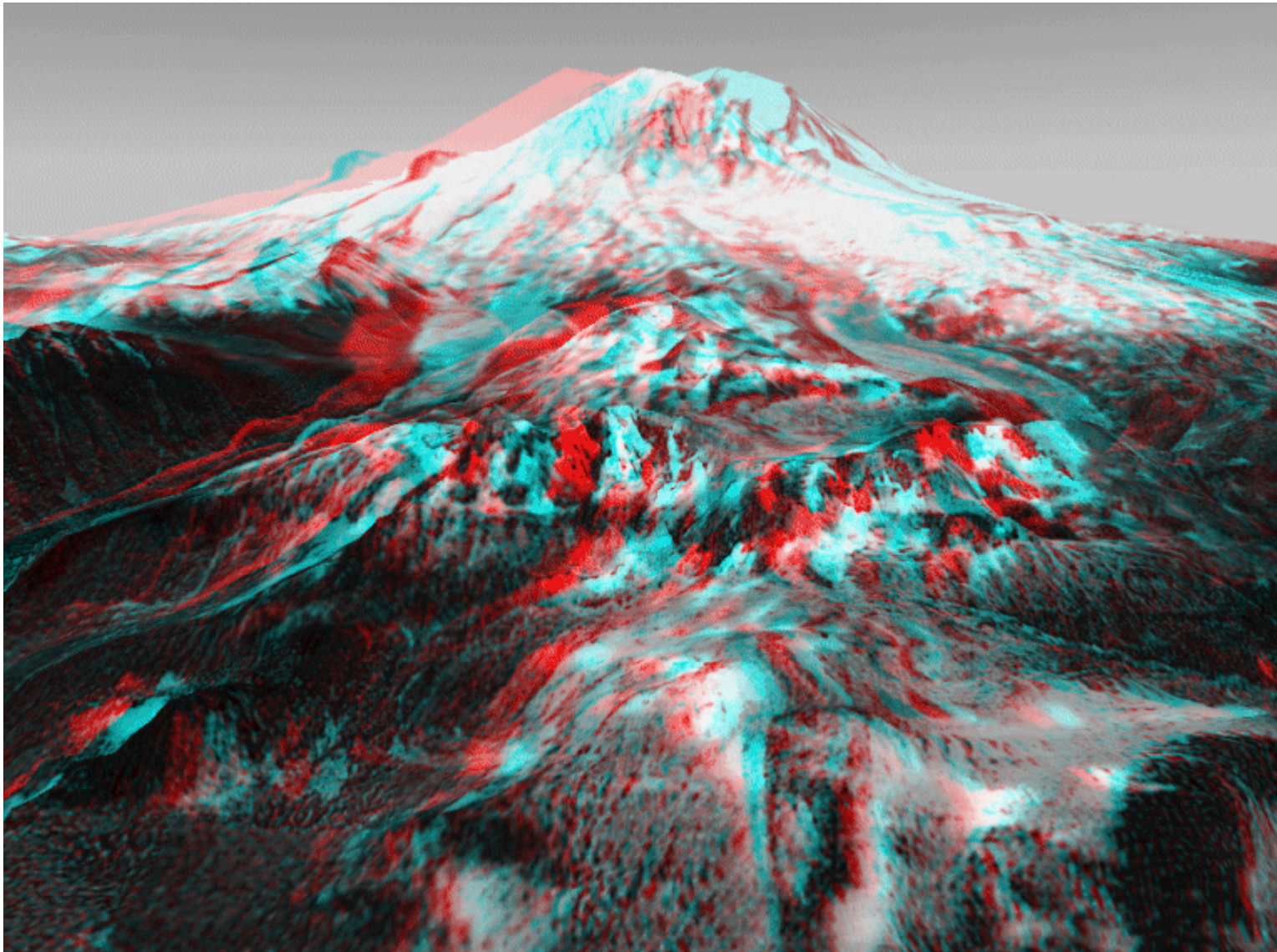


← **Regular
Photograph**

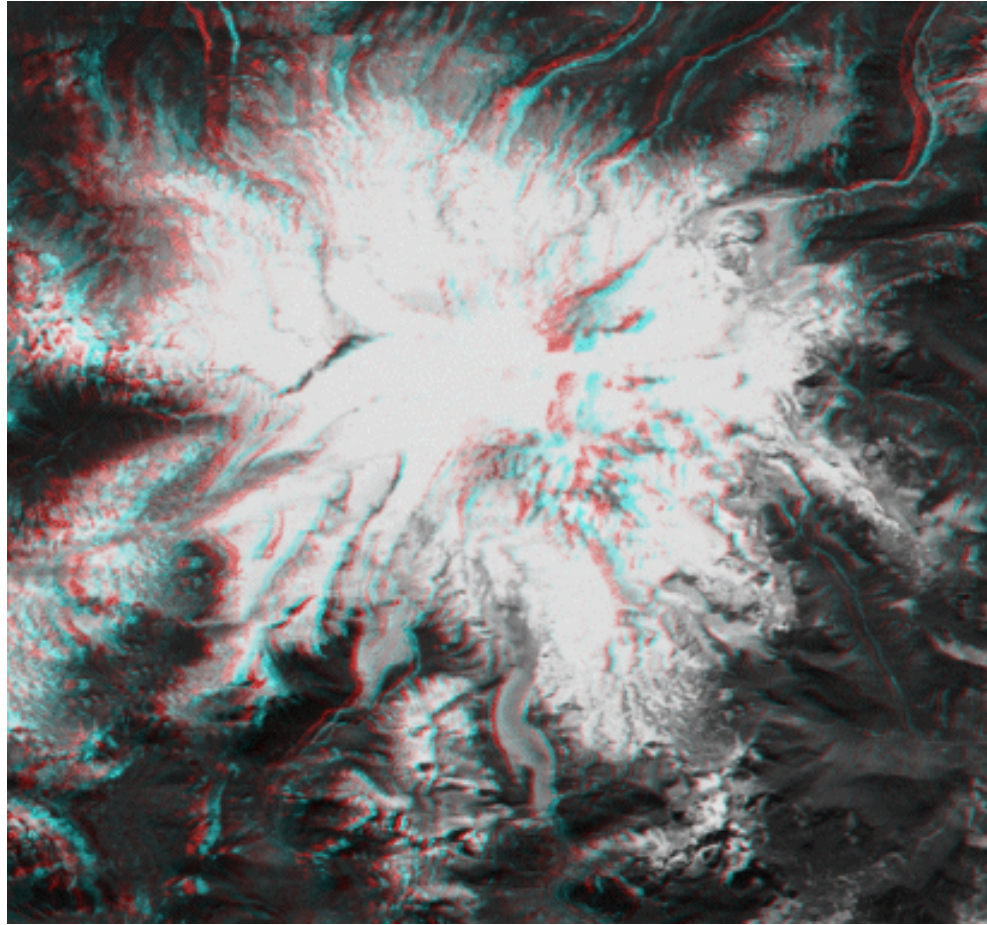


← **Anagly
ph**

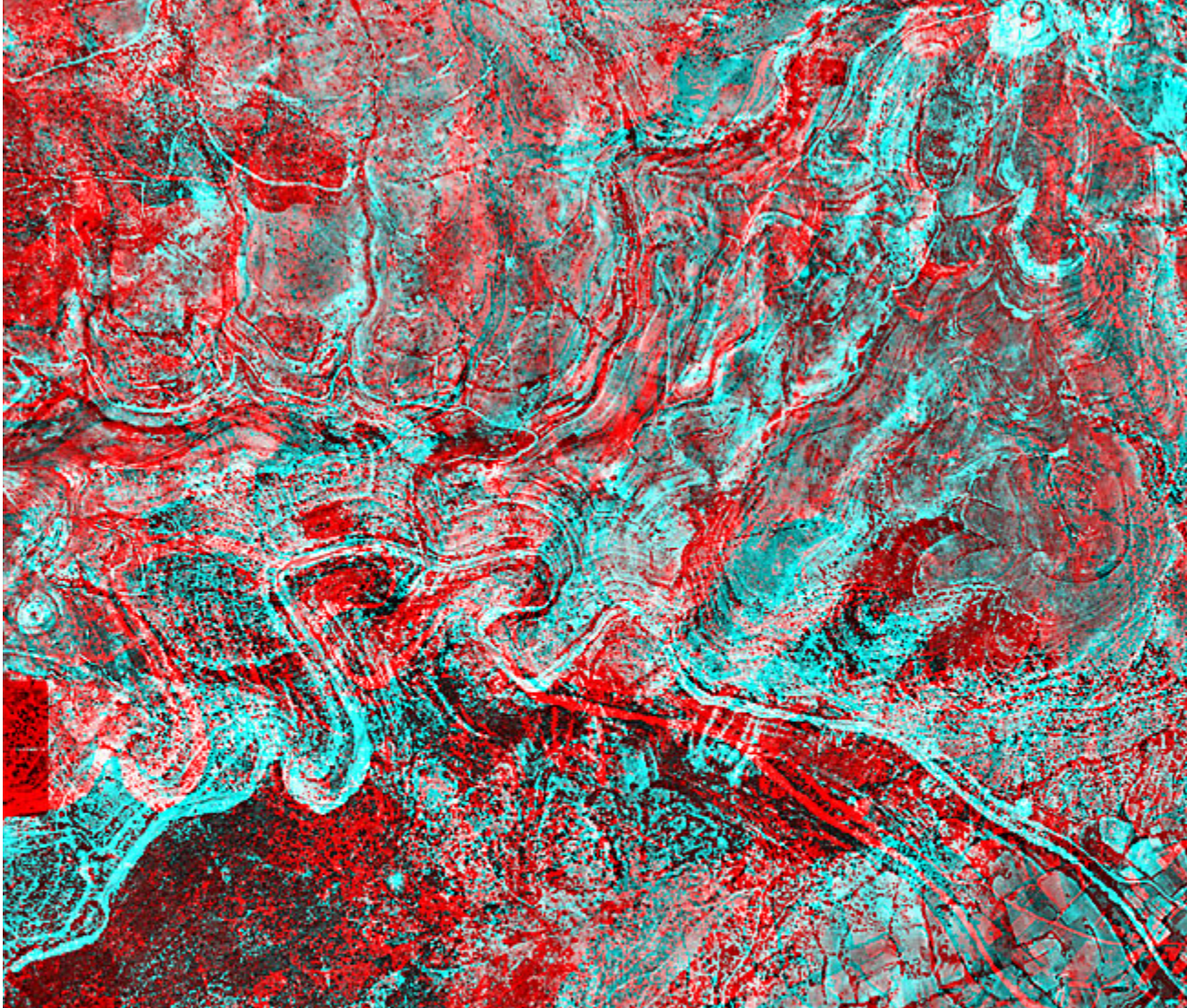
Mountain: Side View



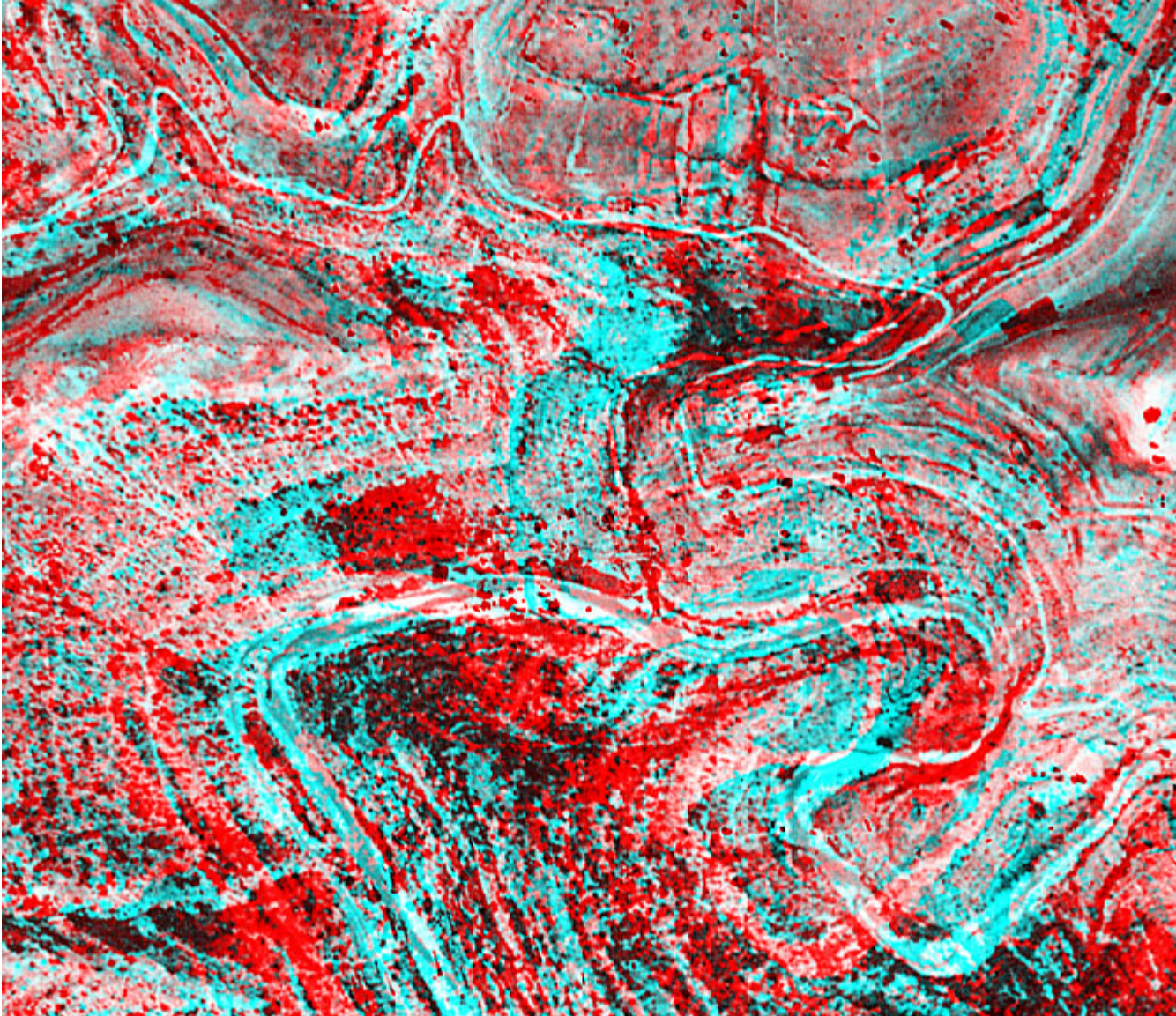
Mountain: Top View

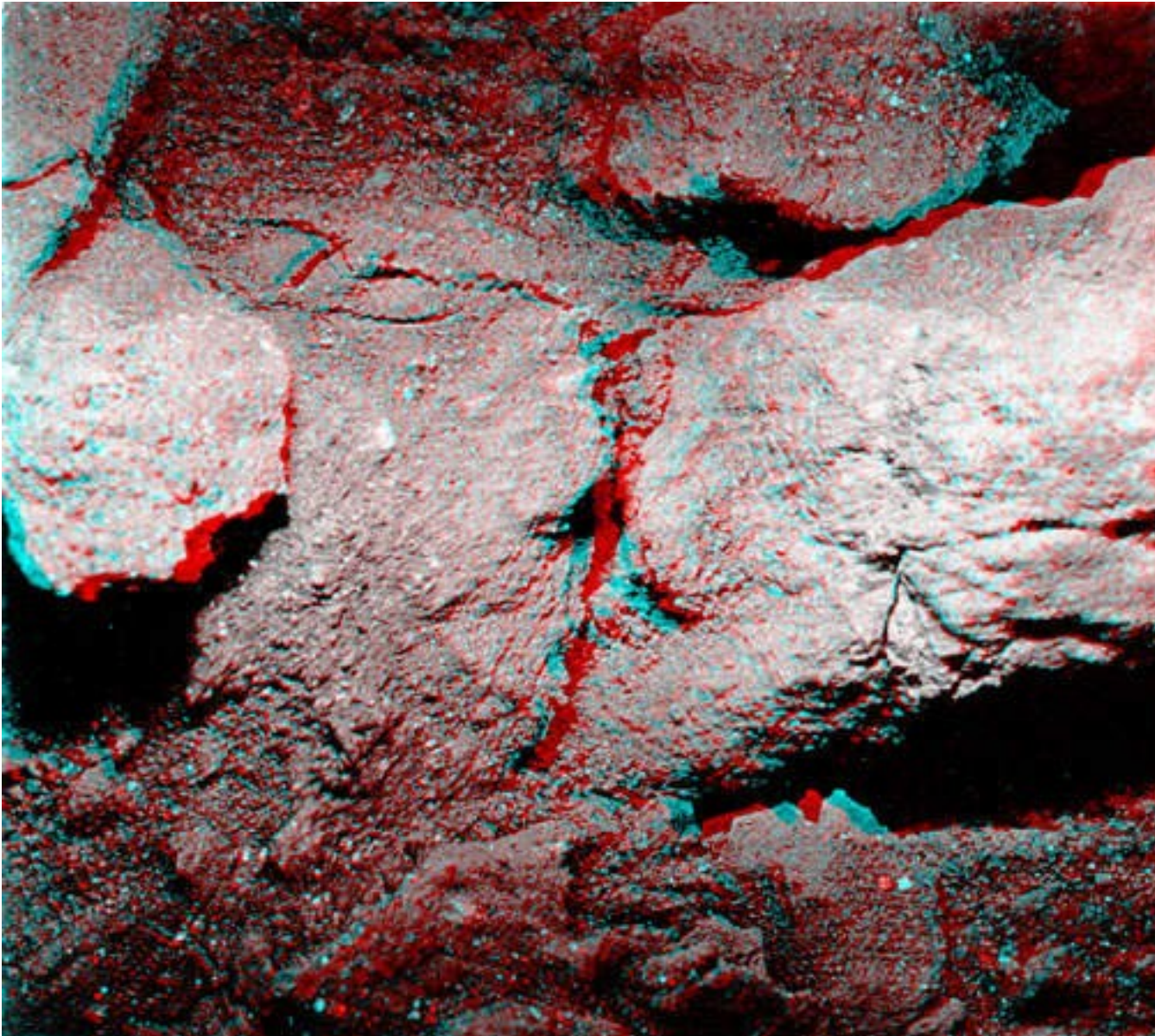


Canyons



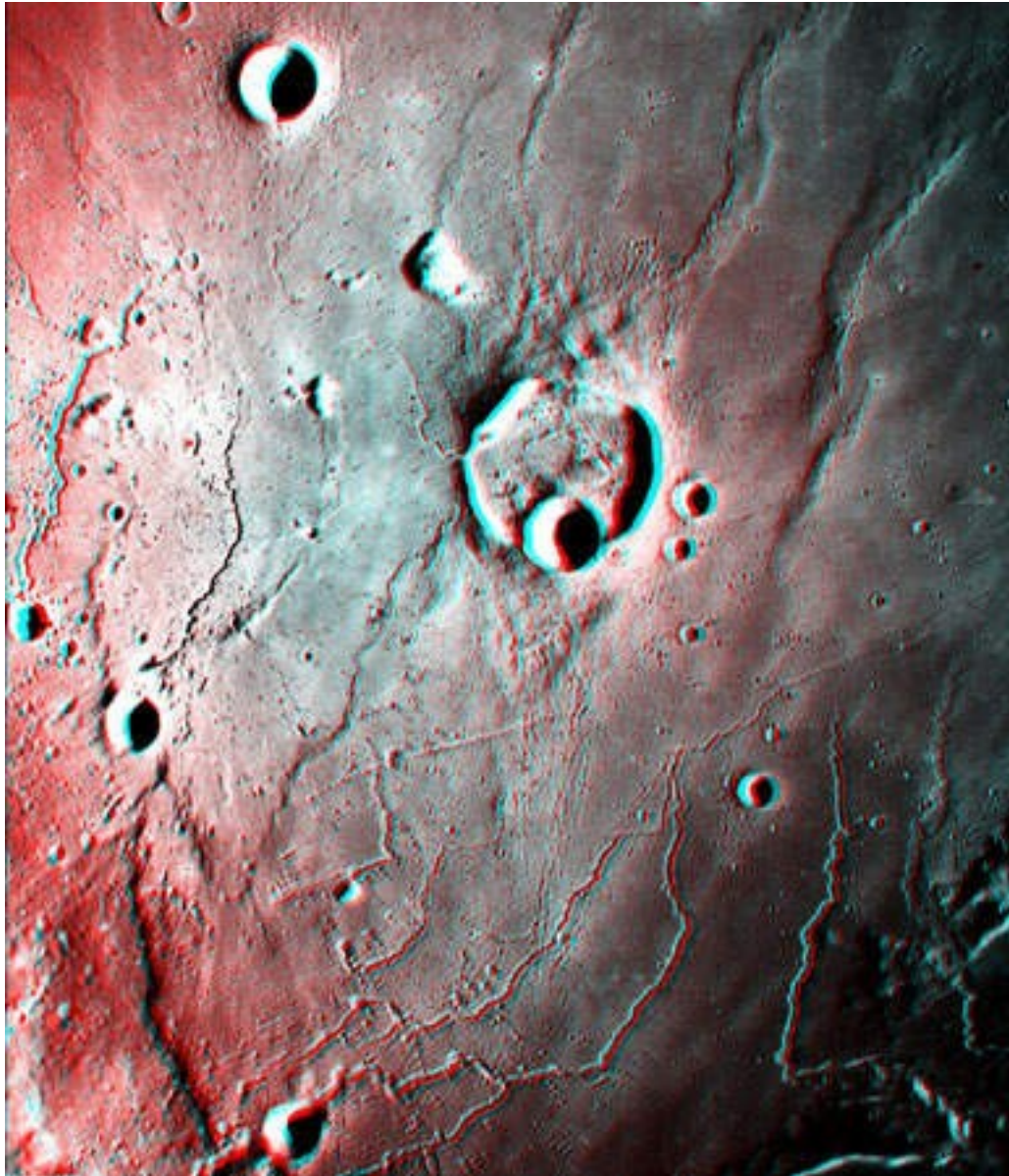
Canyon Close-up





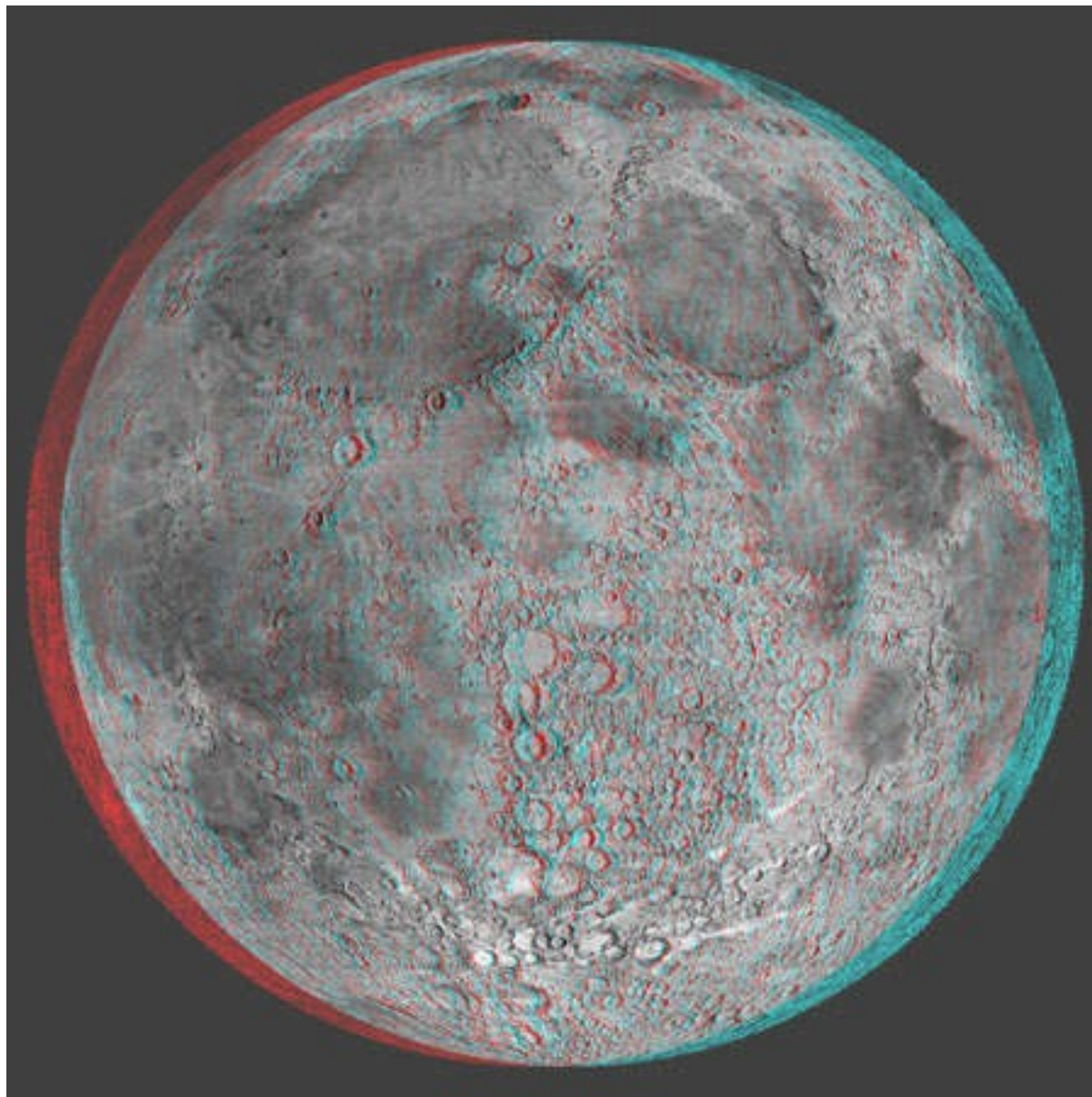
**What
is this?**

**Where
is this?**

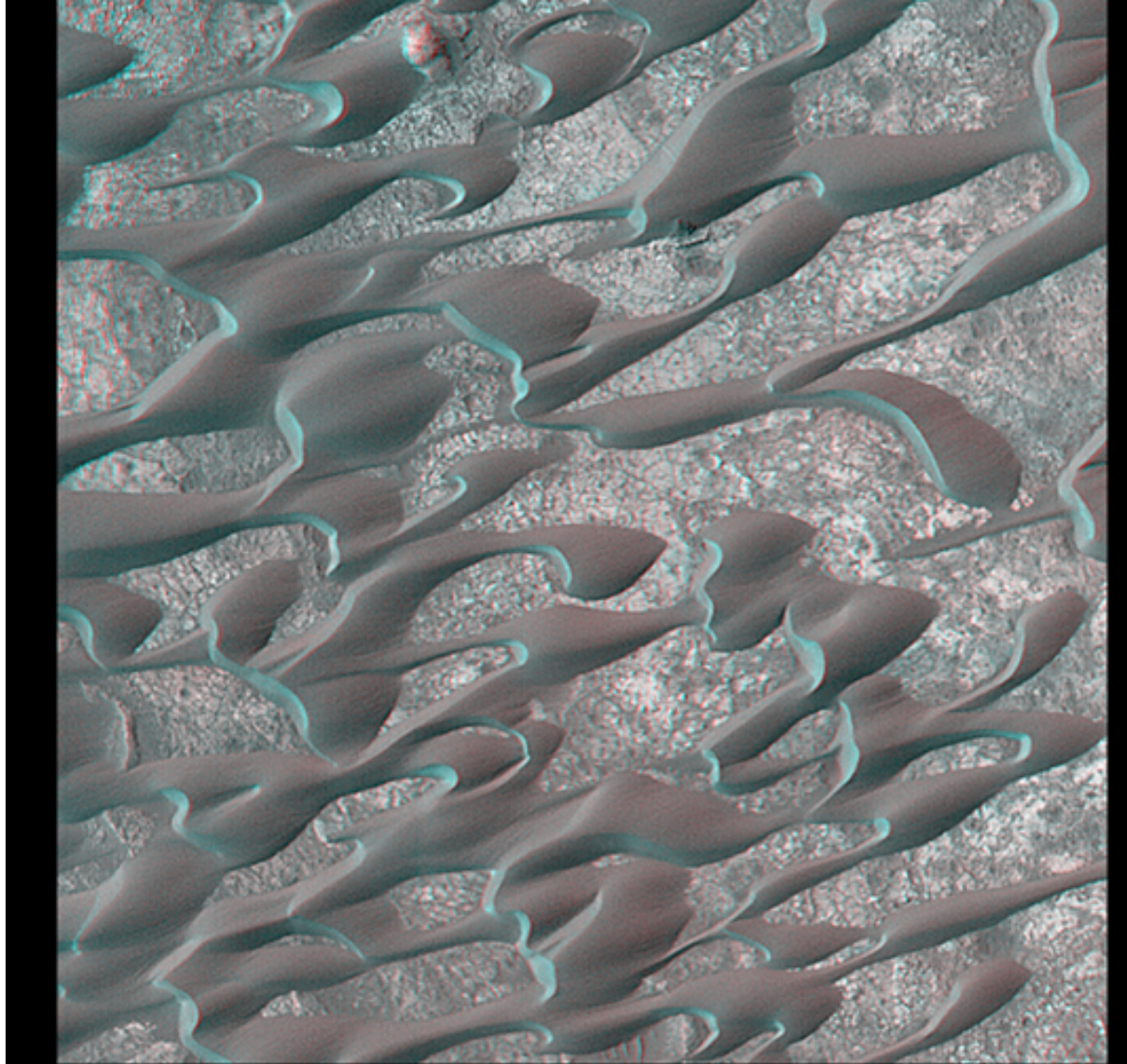


Hint #1

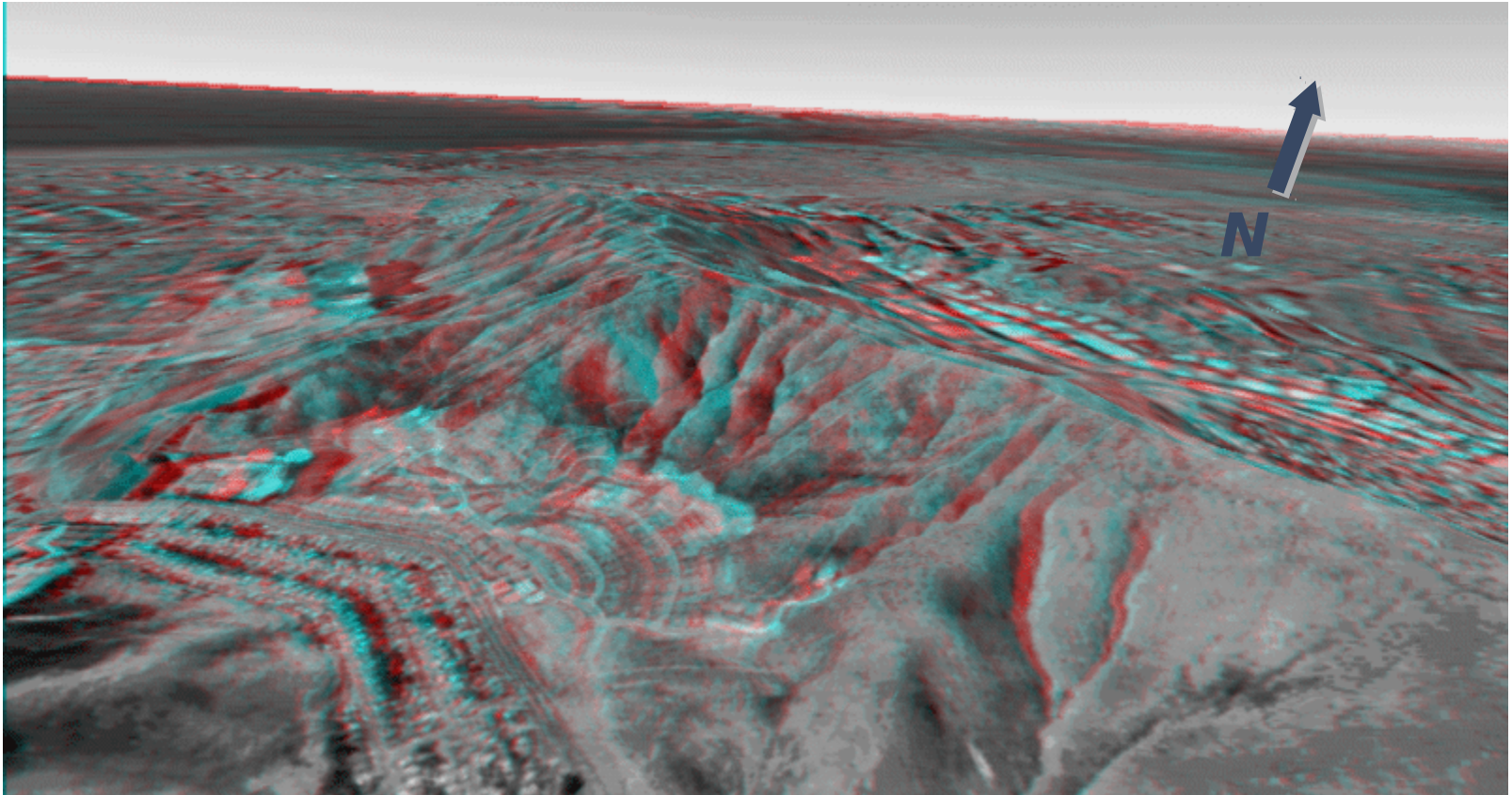
Hint #2



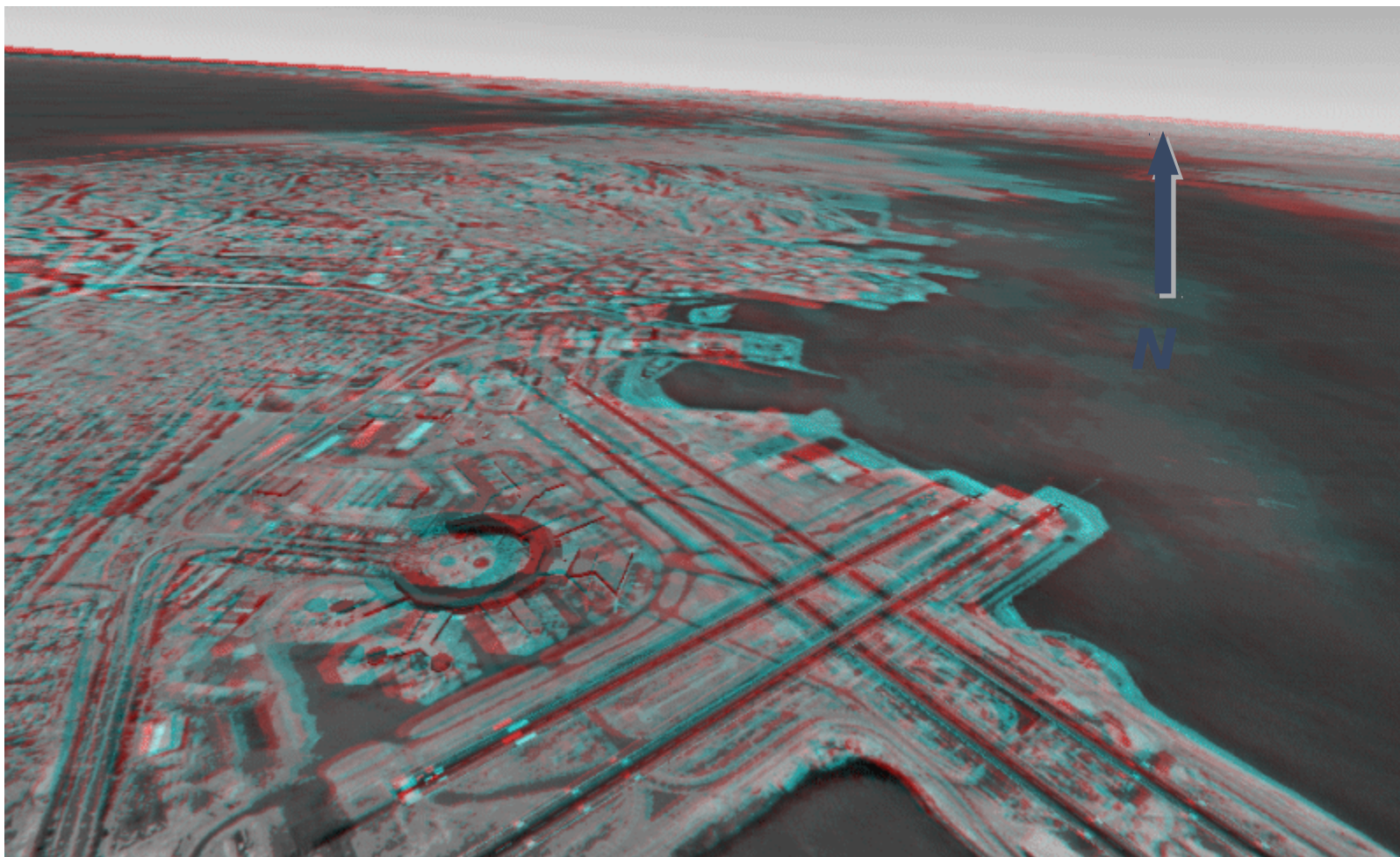
Sand dunes of Nili Patera on the planet Mars



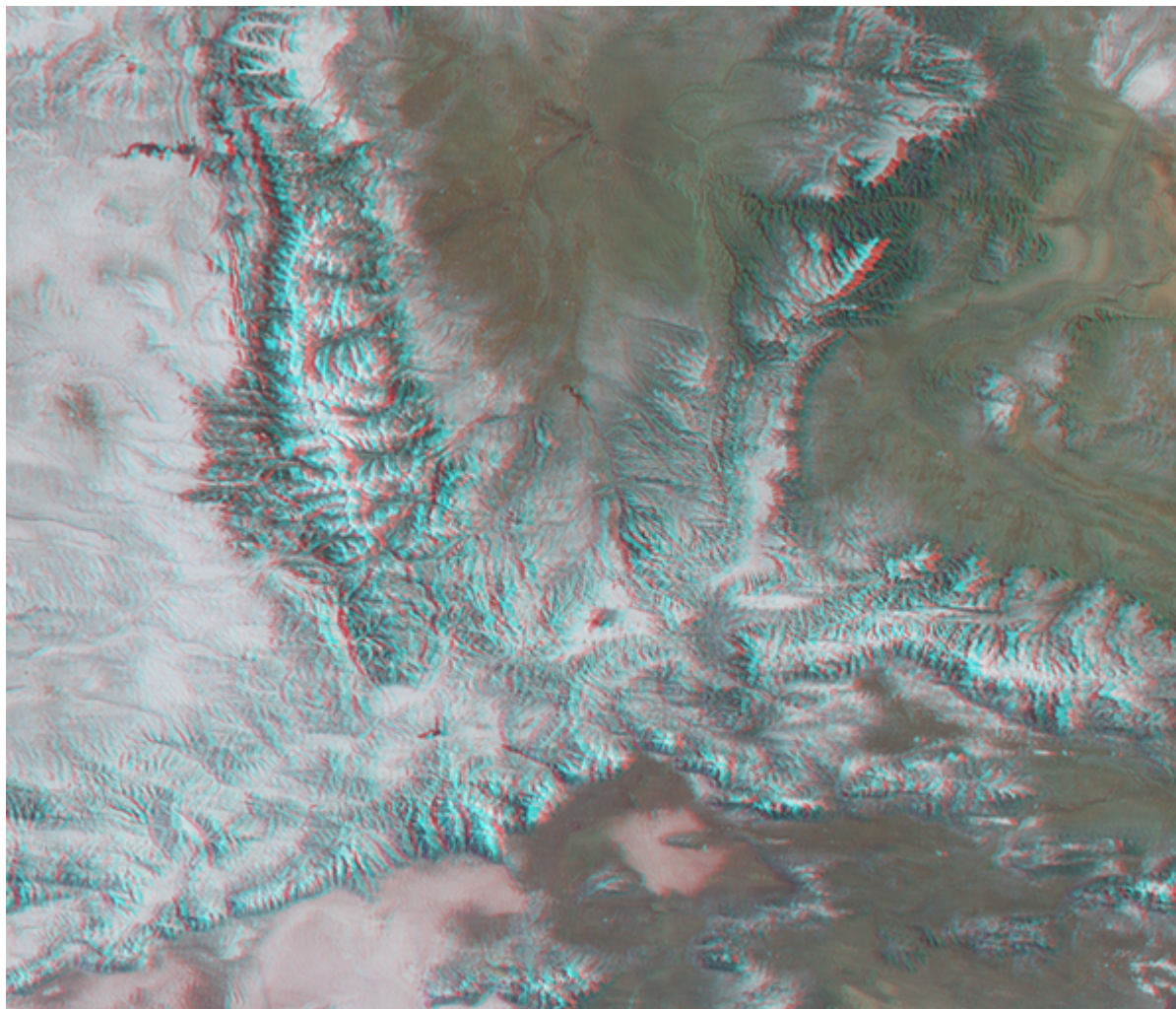
San Bruno Mountains in San Francisco, CA



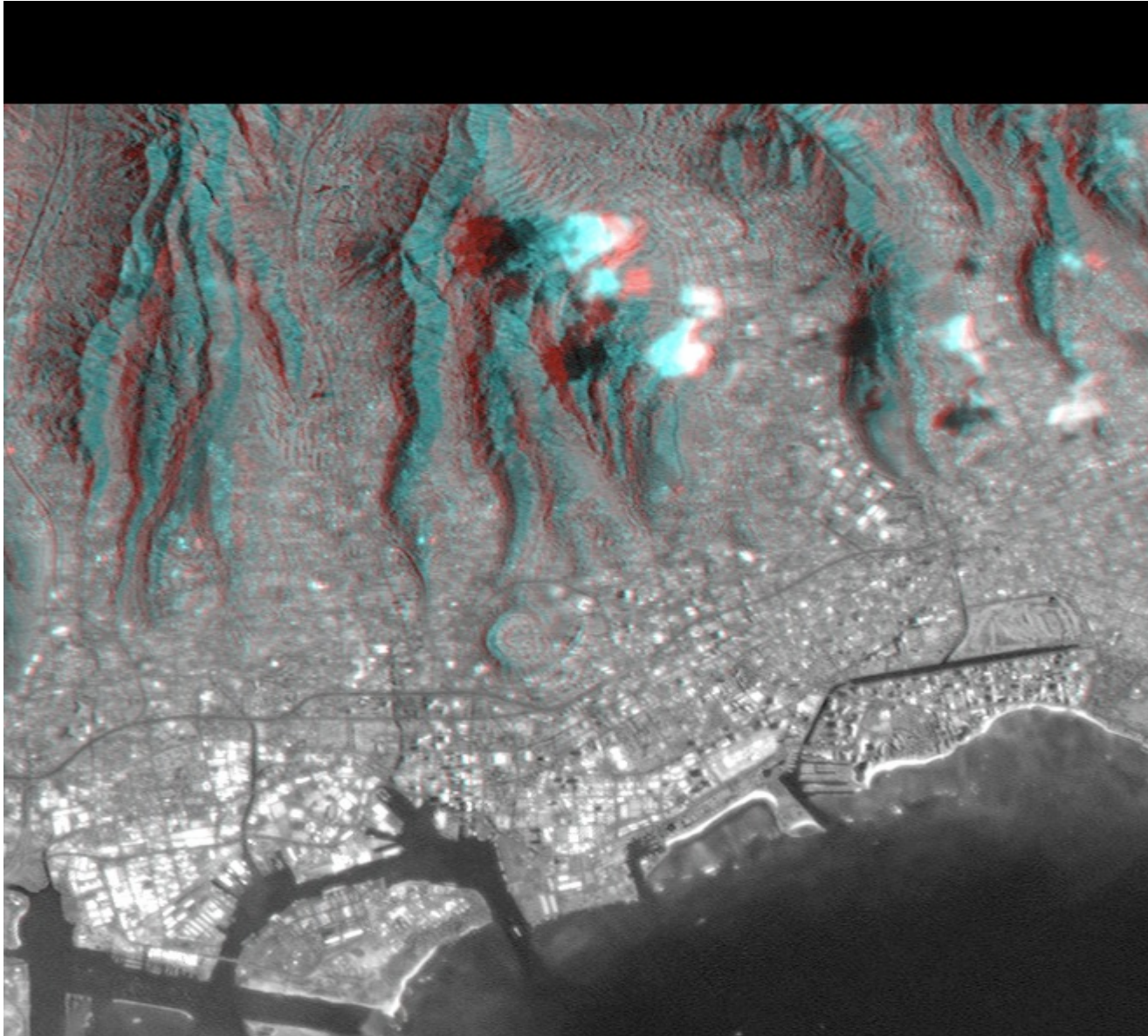
San Francisco International Airport



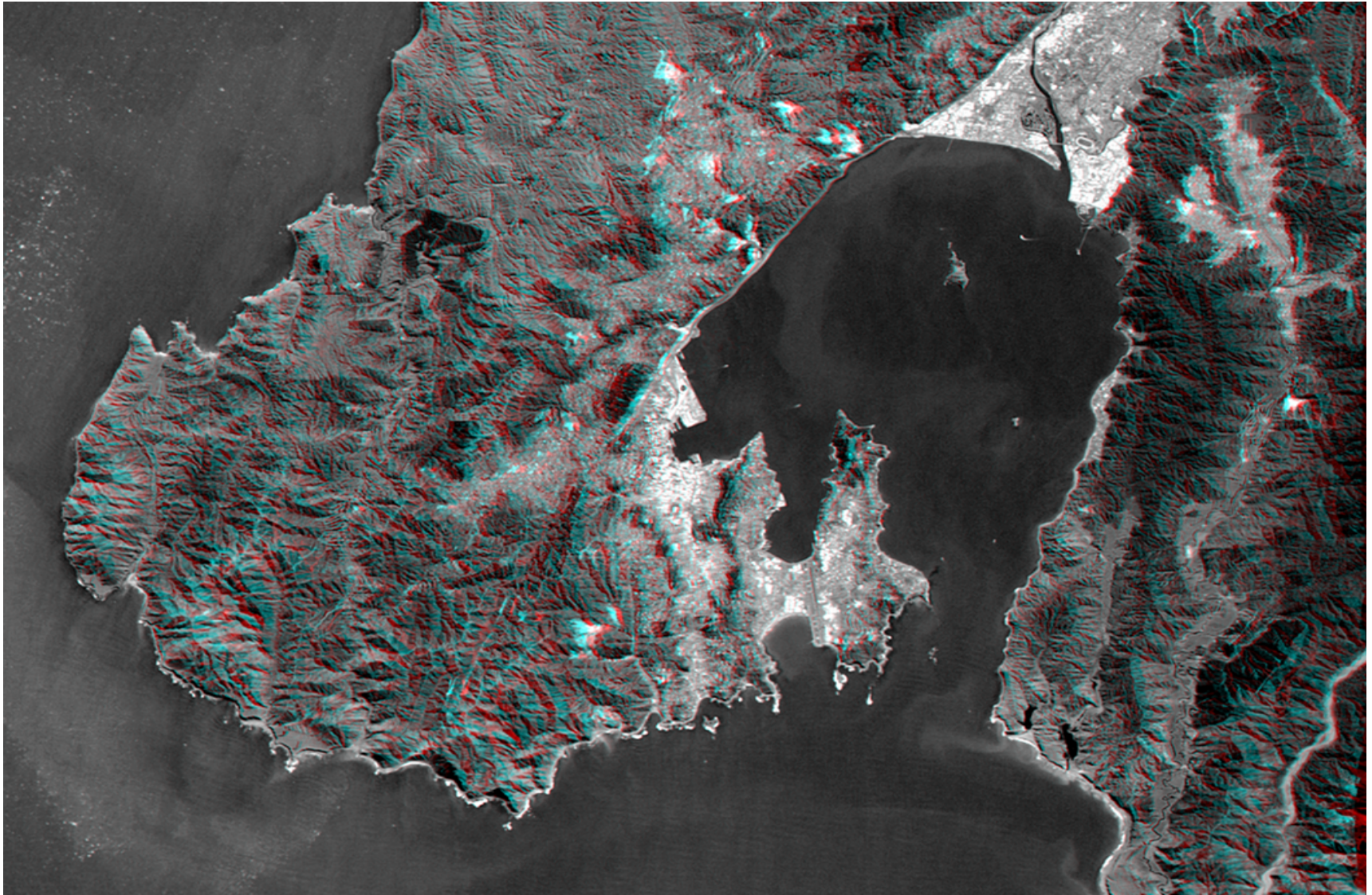
Snow covered peaks Wasatch Mountains and the Unita Mountains, Utah



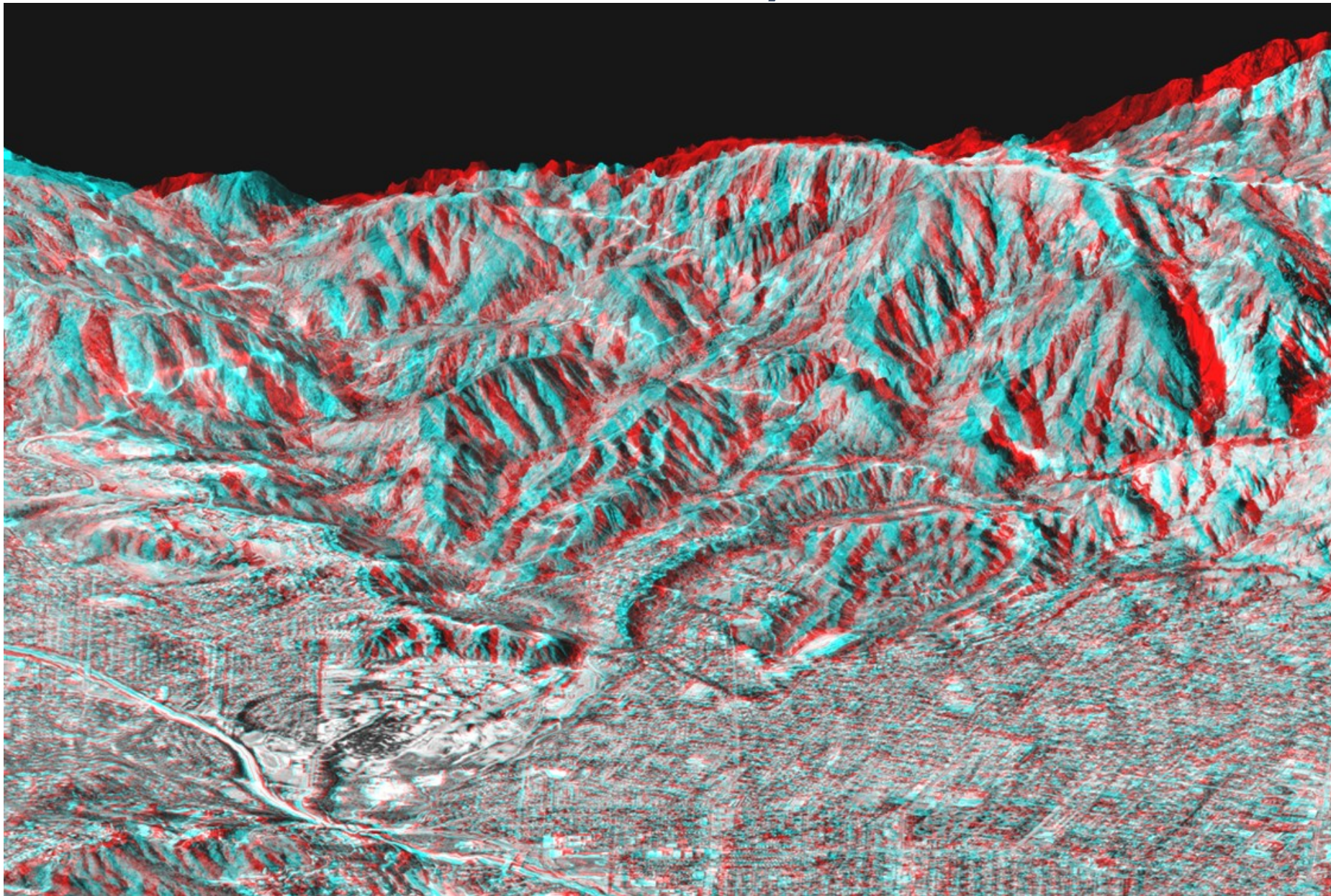
Honolulu, Hawaii



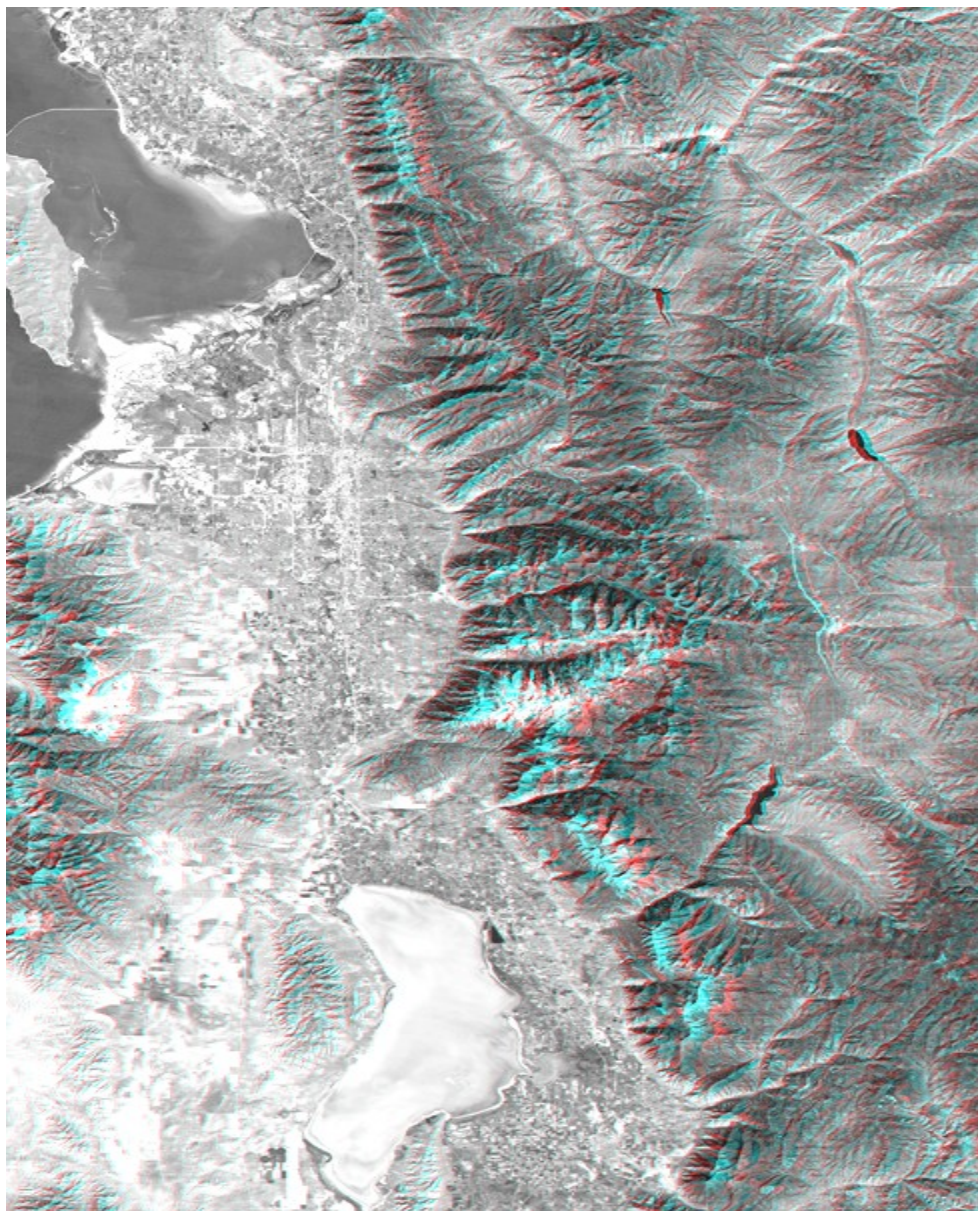
Wellington, New Zealand



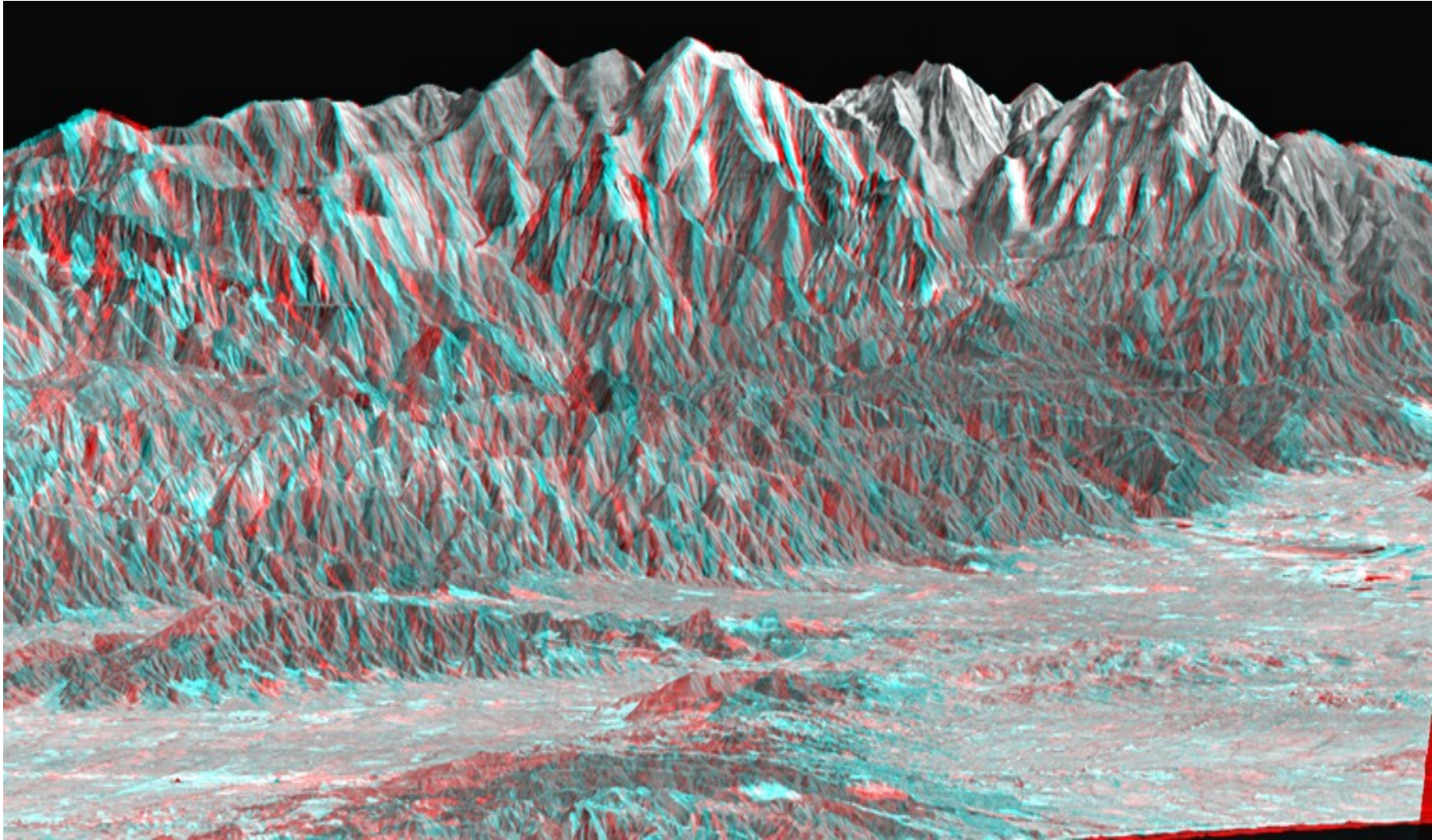
Pasadena, CA



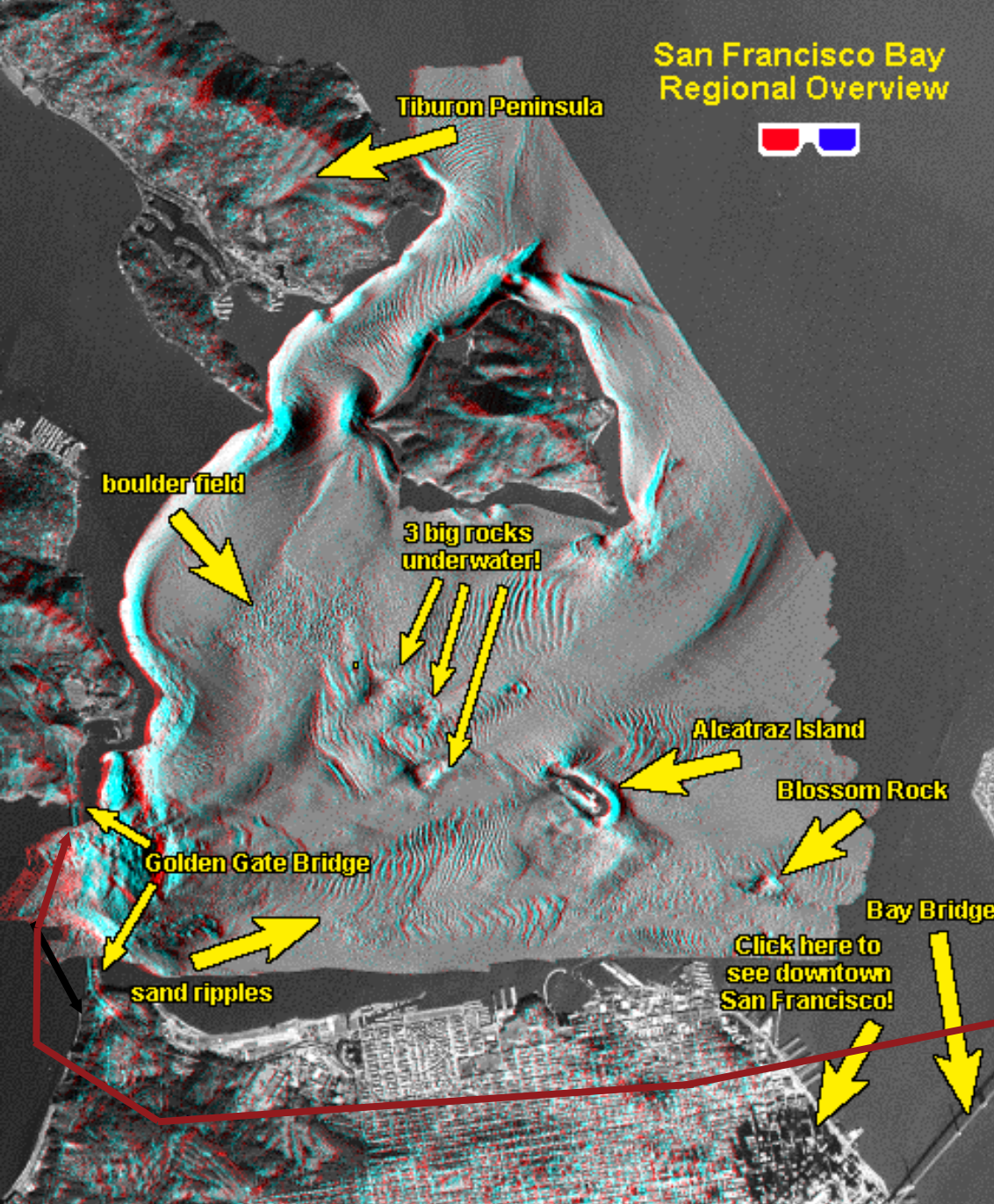
Salt Lake City, Utah



Metro Los Angeles, CA

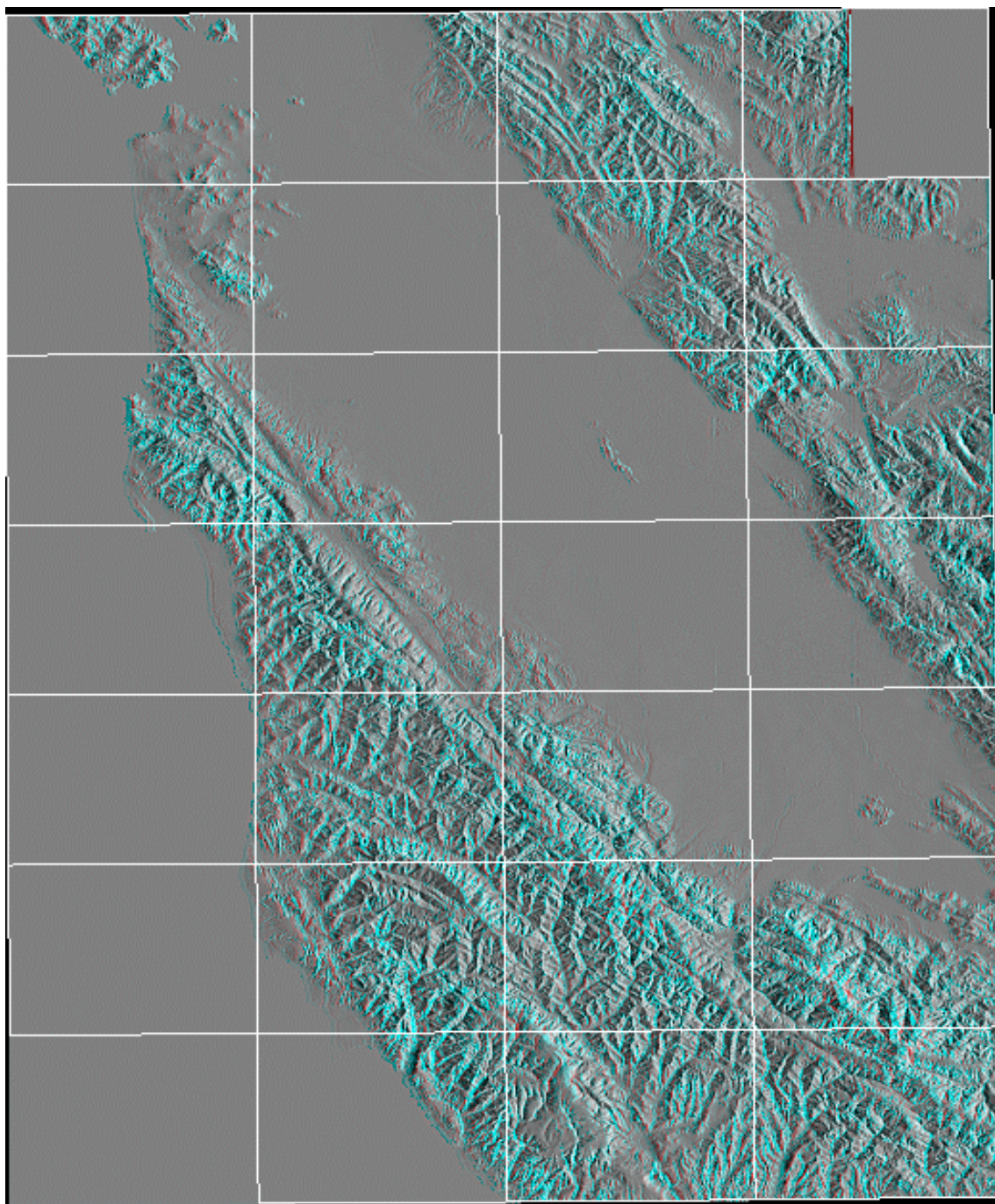


San Francisco Bay Regional Overview



← **Shaded Relief Map**

**Digital Elevation
Model
(Topography)
Image**





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Thank you!

Any questions?



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